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WHY IS STRATEGY SO DIFFICULT?
Contract HQ0034-09-P-3162
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Why is Strategy so difficult?
Final Report

Submitted by

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Executive Summary

This paper identifies reasons why strategy can be so difficult to formulate. It is a speculative analysis, drawing upon the research and experience of the author, and upon the more comprehensive work of others. The analysis focuses primarily on strategy in the context of businesses. To a lesser extent it examines the formulation of strategy for national defense and military operations.

Strategy is difficult because it not only entails difficult analytical thinking, but also involves combining that with identifying actions to take, and with the challenges of moving both the analytical and the action components through the organizational environment of a company. Strategy is about developing an understanding and grasping the key aspects of what is occurring around and within the firm, and that can seem almost academic in quality. But it is also about taking action --- e.g., shaping competitors, developing new offerings, organizing the company, making investments, etc. That has a strong tactile element that challenges the seemingly more conceptual aspects of strategic thinking (i.e., the capacity for great insight and great ideas must be matched by a more mechanical identification about what actions to take and how to take them.)

The analytical and conceptual challenges include:

- <u>Forecasts and estimates about the future.</u> Strategists must struggle with the breadth of knowledge required to make estimates, knowing the weaknesses of any prediction, and relating forecasts to action. One problem is that leading indicators of major opportunities or risks are often buried as a few weak signals in a noisy environment.

- <u>Forecasting how the firm itself will act</u>. The firm shapes how the external world is viewed, options that may be proposed and the pace of implementation.

- <u>Analyzing competition</u>. It is not just about assessing the competition, but also about creating actions to affect that competition and the competitive environment.

- <u>Building distinctive competencies</u>. Identifying those depends on weighing the opportunities and risks in the environment, the behaviors of competitors and others, and the resources of the firm itself.

- <u>Linking analysis to action</u>. Strategy must include broad steps to be taken (e.g., major investments), and more specific actions (e.g., changes in organizational structure and operational practices). Success or failure can depend on seemingly minor details in a company's activities.

- Understanding and applying a wealth of concepts. Many different strategic concepts provide valuable ideas (i.e., portfolios, core competencies, networks, etc). But few people in a company have time to grasp them all. Firms also tend to adopt ones, and resist changing.

- Shaping strategy to the uniqueness of a company. A strategy must often be specifically tailored to a company's situation. While broad principles can help (e.g., emphasizing a portfolio vs. core competency approach), the exact composition can vary from company to company.

- Achieving "fit". Strategy is about achieving competitive advantage by integrating what the firm is, what it offers and what is happening around it. To achieve that within the always limited resources of a company requires an ability to think about innumerable variations of the above factors.

Other influences complicate the intellectual demands of strategy:

- There is no standard set of procedures for developing strategy. It can be set by top leadership. It can emerge by the actions of many people and subunits of a company. It can take years to occur. Brilliance may not be required; tenacity, learning and implementation can be the drivers.

- Strategy formulation involves a tension between process and content. Most strategies emerge from the actions of many people and thus are the result of a process. The challenge is to pursue a process which is rigorous enough to capture key ideas and actions, but not so rigorous that it undermines strategic thinking.

- Of particular importance is the role of organizational and people behavior. The formal and informal structure and practices of a company and its people shape how it observes the external environment, assesses its future and generates actions. However, these factors often are overlooked, in part because they can be subtle and because their importance is not seen as equal to that involving the traditional functions of a firm (e.g., marketing, finance, etc.)

- Strategy has often become transitory. Many industries have seen an increased pace of change in strategy generation itself as industries have become more competitive, and the pace and impact of technologies have increased.

- Strategy is never generated on a level playing field. Absence of information and problems of prediction provide incomplete insights into the world. External forces work to undermine or support a strategy. A company's internal organization has its own preferences.

On a more speculative level:

- Strategy may be less about achieving success and more about avoiding major errors. The key may be to avoid poor choices at the outset, because adjusting from a bad choice is difficult, and resources, time and competitive advantages will have been lost in the interim.

- Concepts of strategy seem to have become more diverse and more intricate in the past 20-30 years. The period between the early 1970s and the mid-1990s seems to have been particularly rich. It may be this was the "growth" period in strategic thinking. By the turn of the century, "dominant designs" of strategic thinking may have taken hold. Moreover, new concepts of strategy may start emerging from outside the U.S.

This paper did not conduct as thorough an evaluation of strategy in the public sector as it did in business, and in the public sector it focused on defense and military strategy. In part that was because the readers of this report will be far more familiar with government strategy, and thus more likely to gain more from an examination of its form and challenges in business.

From a brief review of government strategy it appears that defense and military strategy ---- at a broad level --- have a great deal in common with business strategy. Both deal with forecasting, focusing on opponents, understanding the organization, detecting changes in the environment, developing goals, etc. However, beneath the broad similarities are distinctive and often subtle differences, some of which are so significant that transferring concepts and ideas between the two may have a limited chance of success

- Strategy in government is fragmented. At the level of national security the statements of defense strategy are often decoupled from imposing actions on agencies or practices. At the level of the military, strategy is very complete for wartime, but more abstract in addressing peacetime.

- The view of competition is narrow. The perspective in national security is largely defensive. Strategy tends to be more offensive only in a warfighting. There are certainly exceptions, but the notion in the private sector of a relentless effort to disadvantage opponents does not seem to be present. The literature on national security strategy does not include anywhere near the volume of articles and books analyzing how to beat competitors.

- Government strategy is dominated by adherence to formal practices. Processes are not seen as something to be tailored to formulating a strategy, except perhaps in the NSC. Processes are seen as essential activities that must be employed to produce a strategy. They can even exclude a line of thinking as "not being strategic" based on a definition of "strategy", not on its pertinence.

- Organizational behavior and politics often dominate strategy. Organizations and political stakeholders are as likely to be seen as external constraints, as they are likely to be seen as elements to be adjusted as part of a strategy.

- Except in war fighting, strategy tends to be weak in specifying actions. While action is a centerpiece of business strategy, government strategy usually appears as broad goals and interests. Actions which are addressed appear to be those already ongoing.

- "Fit" is an elusive aspect of strategy. Strategies may be formed that are inconsistent with the external environment or with the internal activities of the government.

To some extent these differences between government and business are reasonable. Government is about reflecting the will of the people; politics is about that. Processes should insure that inputs are obtained from the complex structure of government; insights should not be lost because an agency was not tapped for input. The failure to be too specific enables organizations to retain competencies which may become valuable. The cost of eliminating an existing capability may be irreparable.

One issue --- which is a speculation ---- is that the intellectual content of the business strategy in the past half century seems far richer than in government. These differences seem to lay in several factors.

- Thinking about business strategy is a comparatively new line of thought. Military strategy in particular has been around for centuries.
- Business strategy became an independent line of academic research in the 1970s, on an equal footing with other business functions. Defense and military strategy seems to have been captured by historians and social scientists.
- Companies have provided a rich and large volume of data on successes and failures, against which ideas on strategy could be tested. The number of such examples in national security has been far fewer, take longer to occur, and are more debatable as to success or failure.
- The private sector has made major demands for ideas about strategy. In the government, however, it is not clear that there is a major demand for such thinking (except in war fighting). Politics and organizations trump conceptual thought.

An intriguing question about strategy ---- whether in the private or public sector --- is whether it is an inherent trait of some people or can be learned. Researchers have concluded that some people are better at it than others. However, there does not appear to be much research as to what extent others can be brought to that level of skill. Also, studies of how business strategies are actually developed have raised questions of whether brilliance is important. Tenacity, learning by experience and a bias for action can be more essential. Perhaps the issue lies in the contrast between thought and action. Strategy can succeed without brilliance; it cannot succeed without action. The ability to act is more widely distributed among people.

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Introduction

This paper is my view of what the difficulties in developing strategy. For several reasons it also includes references and citations to many who have studied and thought about the subject. First, these individuals have often spent most of their lives in research and thinking about strategy, or they are managers who have dealt with specific strategies. They provide a blend of academic research and actual experience, and have been a source or reinforcement for many of my views. Second, their articulation is often better than mine. But third --- and most important ---- their output demonstrates how rich, diverse and intensely examined has been the subject of business strategy over the past half century. It began as a new area of business thought and has become a major discipline; its initial ideas have gone through multiple changes; and, the output of work virtually exploded in the 1980s.[1]

This paper does not demand that "strategy" always be referred to by that term. It has been identified by a number of related words, e.g., policy, business policy, public policy, planning, strategic assessment, strategic management, strategic planning and strategy. It has also been used as an adjective (strategic competition) and modified by adjectives (deterrence strategy, manpower strategy, political strategy, manufacturing strategy, Iraq strategy, etc.) While it may be analytically unsatisfying I found it more useful to be loose about the term while trying to understand what others were talking about.[2]

The vast majority of my study has been on business strategy. Consequently, I have approached the subject of "difficulty" from that underpinning, as opposed to public sector strategy (best embodied in defense and military strategy). The volume of literature is prodigious; for example, books on business accelerated in the 1980s after <u>In Search of Excellence</u> and now are about 4000 titles a year. A part of that focuses on strategy. The requirements for data driven research have been demanding, as evidenced by the rigorous review requirements for articles in "Strategic Management Journal", a periodical begun in the early 1980s. Finally, the huge number of firms that have risen and fallen, and the relatively short time in which that can occur (i.e., often in less than a few decades) has created a large data base of strategic "incidents" for creating and testing ideas.

The research in strategy in the public sector --- despite the number of books and articles that could be labeled "strategy" ---- seems by comparison in the past several decades to

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[1] The discipline went through a huge growth from 1960 to 1990, spurred by a number of forces --- the proliferation of PhDs to fill teaching positions in ever expanding MBA programs, the competition among consulting firms for assignments in consulting, and the growth and competitiveness of businesses worldwide. This growth may now be leveling off. See Keichel, Khurana, or Mintzberg on this subject.
[2] Indeed, I think an argument can be made that the proliferation of terms is not in itself a problem for strategy; it reflects the dynamism of research and thinking about the subject. However, it can become a problem when people become overly focused on defining terms and processes for strategy development as opposed to focusing on the content of strategy.

have been relatively sparse in rigorous research. Much of the broader discussions of strategy are historical, political, demographic, economic or organizational analyses. Examples of military or defense strategy can often reach back decades or cover decades, which may be necessary because examples are fewer and cover longer time periods than the rise and fall of individual companies.[3] The most detailed discussions of strategy also are essentially about military strategy, i.e., about how to fight and win wars.[4] These often reference theories or concepts that are centuries old. Perhaps most of the important ideas have already been discovered and codified, and new research may not be that important.[5]

In this paper the organization --- or a set of organizations --- is considered to be the central unit of analysis for a strategy. Companies, military organizations, agencies, charities, etc. have strategy, and those strategies can also involve ties to other companies, agencies, etc.[6] In the public sector people certainly argue that larger groups have strategies, i.e., nations, and by inference regions of the world, ethnic groups, etc. Since definitions of strategy often accept patterns of behavior (even if not explicitly stated) as a form of strategy, I cannot argue that China, the United States, and Catholics do not have strategy. However, I tend to think of these patterns as more cultural than organizational; they are complex assemblies of smaller organizations, interest groups and individuals. At the level of an ethic group, the U.N. or the U.S., what is identified as "strategy" is usually sweeping and shared goals. That tends to make strategy more a discussion of politics, demographics, economics and a myriad of other factors.

More useful is to think about organizations in more finite terms --- as the USAF, Wal-Mart, Strategic Rocket Forces, Microsoft, etc. At that level one can see strategy in action, can observe struggles to fit the environment, and can see efforts to deal with challenges of competitors and competitive environments. And, one can see the effects of

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[3] Notable, in my opinion, is that the best "strategy" examples in government tend to be those associated with actual warfare, even if drawn from past wars. Murray's work comes to mind. This probably occurs because the requirement for implementation and decision making in war diminishes the bureaucratic and political tendencies to keep strategy at high levels of abstraction. War also compresses the time during which strategies experience success and failure.

[4] The war colleges have public references on line to the subject of strategy. In this paper I have tried to refer to government sources because they reflect what the organization (i.e., DoD) wants its personnel to believe and practice as strategy.

[5] An unscientific test of the comparative intellectual output of the business vs public sector strategy is to look for the names of people cited as major sources of strategic ideas in the past 30 years. In business, this usually evokes names like Ansoff, Christensen, Porter, Prahalad, Stalk, and Rumelt. In government it is often difficult to pull up names. Indeed, in military literature the most widely evoked names seem to be Clausewitz and Sun Tzu. Only when one looks for leading thinkers in the past 100 years (vice 30) does it yield names like Mao, Hart, VonSeeckt, Kahn, Schelling, Douhet, Mitchell, and Mahan.

[6] The increasing relationship among firms has led to a new branch of strategic thinking of networks of companies (not to be confused with communications or computer networks). Also, companies of similar capabilities can also gravitate to geographic areas, as research has shown in studying the industrial environments of Rte 128, Wall Street, early aviation in Southern California and Silicon Valley.

acting strategically. To me, strategy without some explicit level of action is only analysis; one can congratulate authors for insights and predictive accuracy, but recognizing conditions in the world is not strategy.

All such organizations have strategy, in my view. Their strategies are reflected in the way in which they are structured, how those internal structures relate, the procedures they employ to do what they do, the types of people they populate themselves with, the physical assets they have, and their daily activities. These factors shape how the organization will view the world around it, its "fit" to that world, the changes on the horizon, and how to deal with those changes. That constitutes strategy, even if it is not explicitly stated. Strategy in my view is the embodiment of what the organization does. It is better that it be articulated to some level of detail, but the absence of articulation does not mean there is no strategy. Moreover, articulated strategy can be in conflict with the strategy implicit in what the organization actually does. Strategy in my view is what the institution does, not what it says it does.

Finally, business strategy is a field of thinking rich in theories, ideas, examples and data. It has defied precise definition for decades, although authors seem to agree on some of its broader characteristics (i.e., long term, and governing keys to an organization's success). For a company, part of the difficulty in making strategy is just how to understand and apply all the theories, ideas, etc. to one company in its particular situation. The field of strategy offers so many concepts and ideas that simply understanding these and when to apply them can be a challenge. In describing the difficulties of formulating strategy I have tried to navigate among these ideas and definitions. In doing so I have struggled more than I had anticipated with the various ideas and with the entire issue of difficulties in developing strategy. Even writing about the subject is difficult.

Examples of Strategy

Research in business strategy has developed a number of ways to think about strategy, and these are often grounded in innumerable case examples. Cases have a major appeal because they are virtual laboratory experiments in strategy. Concepts and ideas are important, but it is how they are brought to bear on a particular company's situation that is key. Cases also force the integration of all the factors involved in strategy and demonstrate how these come together in a particular context. Finally, cases show the immense varieties of strategies, of ways they can be conceived, of how they can be implemented, and of how they can succeed or fail.[7]

For example:

- Microsoft's strategy of dominating the operating systems (OS) and applications software of personal computers had its starting point in the early 1980s when IBM offered Bill Gates the opportunity to write the OS for its new PC. Gates took the opportunity, but Microsoft's great success is owed to how he and others in the firm implemented that opportunity over the subsequent decades. Their success is also owed to IBM's branding and sale of PCs, IBM's inability to develop its own operating system, and their inadvertent permitting of other companies to develop and sell PCs based on the Intel microprocessor. Even Microsoft's eventual introduction of Windows owes much to its principal competitor (Apple), whose superior system set an example to emulate. Arguably Microsoft's strategy took at least 5-10 years to develop.

- In contrast to Microsoft, Apple's operating software introduced in the 1980s was based on the better performing Motorola processor and provided a more attractive user interface. The user interface was particularly important at that stage of the life of the PC market. Computers were difficult to understand and use; people were unfamiliar with the new type of product; and, the difficulty of use limited the size of the overall market. Despite its more attractive attributes, the Apple PC did not achieve the breadth of presence because Apple charged higher prices and restricted other firms from writing software applications or providing additional hardware. While this may have insured the quality of the product and its ease of use, the approach missed the opportunity to have other firms become virtual salesmen for its product. Moreover, Apple's higher prices were to hamper its growth as the PC itself became more commonplace, people became more skilled, competition drove down prices, and Microsoft began implementing Windows.

[7] A problem with cases is that there are so many of them that it is feasible to find examples to support almost any reasonable theory about how to achieve success. There are no equations or formulas for strategic success ---- no unified theory of business.

Apple essentially lost its early opportunity to grow because it did not adjust as the market matured.[8]

- Wal-Mart's power in retailing has its roots in Sam Walton's tenacious commitment to offering consistently lower prices, but that could not have succeeded without a number of innovations over the subsequent decades. Because it grew in small towns Wal-Mart figured out how to establish discount stores in towns with populations under 25,000, which major existing discount chains had concluded could not be accomplished. His firm achieved that by an inventory management and supply system involving central distribution points, cross docking, shipping partial loads and owning the delivery trucks. His small stores thus did not have to maintain large inventories on site and could restock shelves in days when weeks were a common practice. Over the ensuing decades Wal-Mart expanded into major metropolitan areas, and it modified its strategy to exploit its high volume of customer visits to penetrate specific product markets such as toys and groceries (to some extent becoming a shopping center on its own).[9]

- Southwest Airlines went through over two decades of continuous annual profits while other airlines fluctuated between profit and loss, and some went bankrupt. Its strategy was to appeal to business travelers seeking low cost and reliable flights (i.e., no delays), and to families that would pay a slight premium over the cost of driving. But it's success came from implementing that goal by flying only one type of airplane, using less frequented airports, avoiding perks for flyers, not transferring bags to other airlines, and using a simple boarding procedure. These emerged and were codified in Southwest's practices over a number of years.[10]

- Dell Computer rose from a college student's experience assembling personal computers. It built its strategy around letting people order designs configured

[8] Steve Jobs built Apple around this concept. He was removed from his position in the late 1980s as Apple struggled to grow in a market where it had missed the early and rapid expansion phase of the life cycle of the PC. Apple went through several CEOs in the 1990s searching for a new strategy. Its internal organization, built on elegant design, defeated initiatives to move into more mass marketing of PCs. When Jobs returned he realized Apple's skills in design had to be the basis for success. He then embarked on a string of innovative electronics products that exploited computer design, but actually for different markets (e.g., personal music, hand held planners, portable games, and cell phones). Jobs found a strategy to fit the organization, rather than changing the organization to fit the strategy.

[9] Books on Wal-Mart cite that Sam Walton had no idea that his firm would reach the size that it did. His goal of "low everyday prices" was already practiced by discount chains, particularly Kmart, which Wal-Mart would eventually displace. Some articles credited this to Wal-Mart's major investment in computers and communications in the 1980s, which today enables it to track virtually every sale and re-order products in efficient volumes. However, before introducing these technologies it had already displaced Kmart.

[10] Southwest began as a regional airline in Texas, becoming known for its relaxed and sometimes laughable behaviors among flight crews. Its founder gradually realized a window of opportunity existed to build a larger company. Like Wal-Mart it succeeded by rigidly holding to a strategic approach. See Porter 1996.

specifically for them, and paying in advance of the delivery. Customers could personally design their own machines and obtain them quickly. For Dell that meant it only ordered parts for products already sold (i.e., it avoided inventories of obsolete processors and other parts); it did not have to maintain and pay for retail outlets; and, it had far smaller capital needs because customers paid first. Dell recognized that PCs were becoming commodity items; they were largely identical across manufacturers. To win customers, a firm had to differentiate itself on other means than just the hardware. He focused on personal design, low cost and quick delivery.

In just these few examples are demonstrated a variety of issues that are important to strategic success. For example, it is important to understand how an industry is evolving (e.g., from many to a few dominant firms); how the underlying technologies of products and manufacturing are changing; how the customer is developing in understanding and using a product; and, how products reach a customer. Choices about the design of a product and how it is made lead to building an organization and an operating style that are hard to change (e.g., a design oriented firm has a hard time becoming a production oriented firm). Strategy involves major financial choices (e.g., to invest in outlets or deliver directly, where to build and locate inventory, and whether to let others develop improved components or to do so internally). All involve taking risks in the face of uncertainties.

Failures of business strategy --- especially those that would seem to have excellent chances of succeeding --- further cloud the question of what specific strategies succeed and how to go about developing them. Moreover, research suggests that failure is more common than success, and success itself is transitory (i.e., few firms remain number one in their industry for more than a few decades). For example:

- IBM’s PC development is an example of failure as much as success. IBM made rapid entry into the PC market in 1980 and by 1985 owned over 50% of the market. By 1992 this had declined to less than 10%. A key factor was that IBM, in its haste to quickly introduce a product, outsourced the two key sub-elements, the microprocessor to Intel and the operating system to Microsoft. By 1985 IBM was using all of Intel’s capacity under an exclusive agreement. In 1986 Intel offered IBM its new 386 processor in place of the 286. IBM refused the offer because it was making so much money on the 286 powered PCs that it wanted to milk that position in the same manner that it had done so in mainframe computers. Intel then sold 386 processors to a new firm (Compaq), which opened up the market for other firms. By the 1990s IBM type PCs were commodities; it was the microprocessor and Microsoft's operating system that gave it value. IBM had lost control of both.[11]

- In the disk drive industry the size of disk drives began declining from large 13" diameter drives with cumbersome physical characteristics and high cost, to eventually 5.25" or even smaller drives that could be inserted into portable computers. Virtually no firm that was successful at a larger size (13", 8", 5.25") was successful at the next smaller size, even though the next generation drive was in its laboratory. The principal reason was that the customers of disk drive manufacturers were PC manufacturers. A new drive only increased the PC maker's cost in a market where price was a key source of advantage; they would not adopt it until its performance and cost made that a necessity. Disk drive makers in turn were making good sales revenues from the larger drives, had few funds to build new plants for smaller drives, and listened to their customers.[12]

- Boeing in the early 2000s launched a new commercial aircraft product based on new technology and a new manufacturing strategy. They setout to provide the B787 to airlines with major improvements in operating costs. This required moving even further from aluminum to nearly all composite airplanes, which in turn required an entirely different design and manufacturing approach. For example, manufacturing composites required different tooling and even minor changes in form took longer to implement than with metal. In addition, Boeing changed a production approach that had been their standard for a half century. Instead of ordering major parts built to Boeing specifications, they outsourced entire sections of the aircraft (including R&D of some portions) and closed some of their manufacturing operations. Suppliers were to deliver finished sections from all over the world to be assembled at Boeing. Thus, Boeing essentially made major changes in its product, its overall design and manufacturing, its supplier relationships, and its organization and processes. The problems in implementing so many changes led to major delays in delivering the first aircraft. Among several major problems, Boeing had overlooked that its suppliers --- now with a much more expansive role in a new type of product --- were not as sophisticated in their internal operations or development practices as was Boeing.[13]

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[11] Intel in the early 1990s initiated the campaign "Intel inside", which PC makers promoted in return for Intel partially paying for the promotions. What PC makers did not see, and Intel did, was that over time this would make buyers focus on the ever growing power of the processor and not the name of the PC maker. The PC makers essentially made it even harder to distinguish themselves from one another.
[12] This story is the major industrial case underpinning Christensen's book The Innovators Dilemma. The author points out that firms failed strategically because they followed one of the key cannons of business management ---- listen to the customer. They invested resources for their customers' future, not their own.
[13] The B787 by all indicators will be a success, but Boeing combined too many strategic changes at one time without adequately thinking through the implications. It has been backpedalling from its initial strategy. It bought out certain suppliers in order to regain more control.

These examples demonstrate how diverse the sources of failures can be. A company's past successes and past practices can limit the speed and extent of change. Choices made in one strategy can then limit the options in the next strategy. The path to failure does not have to be based on some radical technology or unforeseen events. It can rest in the details of execution and in understanding what is happening around and within the firm. Failure may not lie in lack of vision but in lack of observing and adjusting. Finally, resources are in fact limited, and that involves not just capital but the time and skills of managers, engineers and others in the firm.

Successes and failures together point out a number of often (but not always) common attributes of strategies.

- Strategies tend not to appear instantaneously but over periods of time. During those periods they are often modified based on experiences internal and external to the organization.

- While individuals may be identified as the keys to a strategy, often strategies appear as the result of group or organizational efforts. Even when individuals are identified as a source, in many cases the details of the strategy are the product of others.

- The existing organization is a key element. It has an existing strategy, which a new version or a new strategy has to alter. The organization can be a help or a hindrance, depending on its recent experiences, how accustomed it is to change, its current pool of physical and people assets, and its formal and informal internal practices.[14]

- A strategy can exist or emerge and never be explicitly stated. It can even be created in spite of specific efforts by top management to move in a different strategic direction or to resist it.[15]

- Strategies can be nothing more than recognizing an obvious trend, formulating a way to exploit the trend, and forcing an organization to adjust to it (or creating an

[14] For example, Kodak could see the emergence of digital photography but it dominated film based products. Indeed, Kodak made most of its money from selling film, and film was upgraded every 15-20 years (in contrast to the 18-24 month cycle of digital technology). Kodak's organization was thus built around a 10-20 year new product cycle. Adjusting to a periodicity one-fifth that size took it years to achieve. (See Carroll 2008)
[15] In the 1970s Intel, for example, dominated the market in solid state memories, and its management instructed its engineers not to work on microprocessors. The Japanese were destroying Intel's market in memories, and after several years senior management finally decided they could no longer compete. At that point they discovered that their laboratories had secretly been developing microprocessors.

organization to do so). Success can come from being first to do so, or by being a fast follower.

Examples of strategy in the public sector have some similarities to business, but are distinct in at least two ways. First, while strategy in companies is considered to embrace the entire firm, public sector strategy is fragmented. Second, examples of strategy in government consist of more abstract goals and statements, and lack the specificity found in business strategy. Only in military strategy for war does one seem to find a blending of goals and actions that parallels what is common to business strategy.

Examples often cited as successes in defense or military strategy include:

- Nuclear deterrence and warfare: Over several decades concepts were developed for peacetime and war involving the presence of this new technology. Early concepts were formed in a period when knowledge of the USSR's capabilities, targets, leadership's views, and military plans were limited. Subsequent decades were to see a changing of these strategies as weapons, forces and views of war changed. The end of the Cold War without a nuclear exchange was certainly a mark of a successful strategy, even though historical studies have shown how close to actual war the two sides came at different points.[16]

- SDI and U.S. investments in forces in the early 1980s: These initiatives confronted the USSR with the challenge of matching the U.S. and were viewed as contributing to the collapse of the USSR. They were based in part on understanding weaknesses in the USSR, but at least as much on exploiting advances in U.S. technology, meeting U.S. needs to rebuild U.S. forces, and the single minded views of U.S. leaders. Almost a decade was required to have a successful impact on the Soviet Union.

- Follow-on Forces Attack (FOFA): This emerged in the late 1970s as a new approach to defeat a possible Soviet attack in Central Europe. It emerged as NATO came to realize that its current forces could not defend against a Warsaw Pact attack by only engaging the enemy at the front line. FOFA exploited a confluence of technologies for long range targeting and precision guided weapons that provided a path to address the problem.

Examples of failures ---- or limited successes --- in defense and military strategy usually involve combat operations in which the initial set of strategic approaches is found to be

[16] See, for example, One Minute to Midnight.

wanting. An alternative is developed that is more successful --- even if the overall outcome of the conflict is not favorable.[17]

- American military operations in Vietnam: The war involved a number of missteps but by about 1967 operations on the ground were draining the forces of both the Vietcong and the North Vietnamese. The 1968 Tet Offensive reflected a miss-estimate by the enemy on its ability to defeat the U.S. and SVN military, but gave the anti-war movement a boost that led eventually to U.S. withdrawal. The failure to win has been attributed to the inability of American civilian leadership to grasp the nature of the war and make decisions in the face of the domestic political climate; the military leadership's inability to grasp the nature of the war and respond accordingly; conflicts of views and goals among the top level U.S. political and military leaders; and, the "luck" of North Vietnam in 1968.

- American efforts in Iraq: Following initial success in 2002-03, American efforts have been identified by many as failing strategically by 2005-2006. At that point, military strategy shifted from attacking the enemy to securing the Iraqi people (i.e., the people became the center of gravity). This shift in thinking has generally been attributed to the experiences of officers returning from assignments in Iraq, to serious thinking by General Patraeous at Fort Leavenworth, and to the thinking and writing of people familiar with insurgent forms of warfare.

Such examples tend to have some common attributes:

- The time frame for thought and action can be measured in years or decades, far longer than in business.

- The origins of these ideas and their articulation ---- although they may be associated with an individual ---- generally rest with many people, organizations, interest groups, etc. They appear to emerge over time rather than being a sudden creation.

- Strategy in government does not embrace the entire organization. Defense strategy, for example, can include goals and policies which ignore whether some institutions of DoD can support them.

- Actions can be not only disconnected from strategy but actions can remain in conflict for extended periods.

[17] At least two problems affect analyzing military strategies. First, people disagree on whether failure or success actually occurred. Second, they disagree on the causes of each. Measurements of success or failure in business are somewhat easier (e.g., bankruptcy, closing down operations, selling businesses, loss of market share, etc.)

- Even the less quantifiable measures of success and failure can be debatable.

While some similarities exist, strategy in the public sector is thus distinctively different from that in business. It can be very difficult to translate ideas from the private to the public sector even though the words may be adopted (e.g., core competencies). Some difficulties can be obvious, such as the differences in techniques of measurement. Some are more subtle, and arguably more difficult to overcome.

Definitions of Strategy

In the business environment strategy is seen as an extraordinarily complex linkage between what occurs within the firm and what occurs external to the firm. It mixes the past, the current, the future, and the transition to that future. It deals with the risks of errors in estimating the future, in figuring out how to reposition for possible futures, in understanding how competitors and other will react, and in estimating what can be done (and how quickly it can be done) to alter an organization.

At appendix A is a series of descriptions of strategy that have been put forth over the past fifty years to describe its role in business. Just reading these provides a sense for the variations and for the common themes across them. For example:

- "Corporate strategy is the pattern of major objectives, purposes or goals and essential plans for achieving those goals, stated in such a way as to define what business the company is in or is to be in and the kind of company it is or is to be."[18]

- "the definition of strategy seems straightforward until we attempt to describe it ….. The most familiar usage recognizes strategy as a plan, or a consciously intended course of action …. Strategy can be inferred from consistency in behavior, even if that consistency is not articulated in advance or even intended ….. (some) view strategy as position ….. (as being about) differentiation of products, low cost, or specific customer groups …. Strategy as position focuses on the content, or economic substance of the chosen strategy … Finally…. Strategy can be .. a unique perspective or way of doing things …. a perspective shared by the members of an organization."[19]

Although "no consensus exists about what corporate strategy is"[20], there are recurring themes across descriptions of business strategy, such as evaluating the external environment, understanding the competition, focusing on the firm's organization, developing distinctive competence, and seeking differentiation from others. Strategy should set how a firm will act towards other organizations, for example, partners, suppliers, distributors, customers, and regulators. Business strategy sees uncertainty as a

[18] Kiechel pg 118-120, quoting Kenneth Andrews' 1971 book The Concept of Corporate Strategy. Andrews' book was an attempt to provide a framework for the cases taught at Harvard in Business Policy. According to Porter this early literature set three key criteria. First, a company should develop and implement an internally consistent set of goals and functional policies that collectively define its position in the market. Strategy is way to integrate the activities of the firm. Second, these should align the firm's internal strengths and weaknesses with the external threats and opportunities. Third, the central concern should be the creating and exploitation of distinctive competencies. (Porter's chapter in Rumelt pg 425-426)
[19] Simons pg 8-9.
[20] Porter 1987 pg 43.

factor ---- not just inherent to predicting the future --- but inherent to understanding how organizations will react to strategies. What the firm wants to do should include what it will not do, for strategy is about boundaries.

However, there are also variations about what constitutes a strategy.

- Some see strategy as a specific statement which is developed before the major aspects of the strategy are adopted by the organization. Some see strategy as evolving over time. The strategy may or may not be explicitly articulated.

- Some see strategy as emerging from the specific set of individuals. Others see it as evolving from behaviors distributed widely across a company.

- Some see strategy as focused on markets and businesses; others see it as focused on deeply imbedded skills and assets in a company.

- Some identify a strategy as a broad concept for how the firm would distinguish itself in a market. Others see it as a set of goals or objectives. Others view it as a set of policies or actions that guide the company.

The various definitions of strategy potentially can confuse its formulation. Some people list so many attributes to a strategy that it can almost seem too complex to prepare, and certainly can open up a suggested strategy to criticisms from opponents for what it lacks.[21] Differences of definition can open up debates about its content, debates that may end up being settled by the ranks of the participants or the past experiences of the company and not the content of what is needed.

Military and defense strategy are seen as complex as business strategy --- some might argue more complex --- and examples of definitions are at Appendix B. As in business strategy there is no standard definition.

- "Surprisingly for such a significant term, there is no consensus on the definition of strategy, even in the national security arena. The military community has an approved definition, but it is not well known and is not accepted by nonmilitary national security professionals. As a consequence, every writer must either develop his or her own definition or pick from the numerous extant alternatives."[22]

[21] For example, Mintzberg in his various works identifies over 20 different attributes of a strategy, such as visionary, judgmental, creative, action oriented, misleading competitors, sustainable advantage, shaping the firm, setting broad outlines, distinctive competence, integrating, adaptive and emergent.
[22] Bartholomees pg 79.

Major organizations within DoD have authorized definitions, obviously to assist the formulation of strategy. However, definitions also are constraints. They define ranges of acceptable thought. In the extreme cases, organizations may expend a great deal of energy debating whether a point, regardless of its importance strategically, can be included in strategy because it does not fit some standard definition. Energy may even be expended just defining terms. This both expends the scarce resources in the organization, and diverts strategic discussions from the content of strategy.

Two examples present what seem to be major differences of views of strategy:

> War Oriented Perspective "Policy is a government's position, statement, or plan of action designed to influence and determine future decisions and actions… (it) reflects a government's war aims and embodies its understanding of the war's causes, its conduct, and the circumstances of its conclusion and consequences…… Strategy is a general plan for the creation, deployment (geographic movement), and employment (use) of coalition and national armed forces to achieve war aims by destroying the enemy's will and ability to wage war. In theory, war aims should determine strategy, but often other factors such as geography and distance, coalition relations, and the speed with which decisive armed forces can be created shape strategy as well….. Strategic plans attempt to identify .. enemy strengths that (must be) overcome. "[23]

> Competition Perspective "(The elements of strategy include) …. changes in the nature of the geostrategic environment, the goals of our competitors, and the ways in which wars will be fought …. fundamental aspects of competition …. … the strengths, weaknesses and characteristics of the United States …. (the) nature, size and organization of the U.S. military …. The strengths and characteristics of potential competitors …. The set of essential missions that the U.S. will have to be able to accomplish effectively, no matter which specific competitor …. shaping the U.S. military .. for long term competition …. (by prescribing) a set of actions designed to improve (its) position vis-à-vis (competitors) …. to develop and maintain high levels of military capabilities relative to (U.S.) goals and the goals and means of (those) competitors ….. (that are also) applicable across a range of future environments …. (including actions) to guide the allocation of resources, shape processes and procedures, and organize the DoD …. a plan for not just what will be done but how change will be effected …. (to provide a basis to) view individual programs, decisions and adaptations not as isolated incidents but rather as moves within a much broader context …. ."[24]

[23] Murray pg 583.
[24] "Maintaining U.S. Military Superiority" OSD unpublished draft article summarizing views of OSD Newport 1999 study

While in business strategy the various concepts largely began appearing after 1960, in military or defense strategy, many of the concepts had emerged before then. Writers on the subject had already identified major fundamentals, such as pursuit of some larger goals; attention to competitors (identified as the "enemy" or "threat"); indirect approaches to affecting competitors (as well as direct confrontation); focusing on an opponent's strength and weaknesses; focusing on his center of gravity[25]; and, the importance of allocating inherently limited resources. In the definitions of strategy used by the war colleges even today, the thrust or perspectives on strategy reflects these perspectives.

The differences in definitions between business strategy and defense or military strategy are so significant that making translations from one to the other is hard. The levels of research, elaboration of ideas, and the education of people are so different that concepts which should be applicable from one to the other (e.g., distinctive competence, core capabilities or competitive advantage) can be seen as alien to the practitioners of the other type of strategy. The government has certainly picked up on the words often used in business strategy, but it is unclear they have adopted the behaviors that underpin the words. Commercial use of military strategy ideas is similarly uneven. [26]

[25] According to VanRiper, Clausewitz concluded that to achieve the ultimate goal of breaking an enemy's will, a nation must direct all of its efforts at a center of gravity.
[26] Occasionally people involved in business strategy write books drawing parallel to military strategy (e.g., Clausewitz on Strategy by the Boston Consulting Group) These can demonstrate so much over-reaching as to lead one to conclude the writers had too much spare time on their hands.

Vision and Insight

Developing strategy often requires a capacity to view the organization and its external environment in a different manner and to conceive of new ways to act. That capacity is labeled with terms such as “insight” or “vision”. It may involve changing the strategy of the firm entirely, either because of a different appraisal of the external environment or a different understanding of the firm’s own operation. It may involve creating a product or service for which there is no existing demand. Alternatively, it may involve no massive change in a company’s strategy but a modification to one aspect of its existing strategy.

Many authors see vision or insight as important part to business strategy. It is seen as a precursor to more detailed development of a strategy and to the investment of resources to implement the strategy.

- “Business strategists can use their imagination and ability to reason logically to accelerate the effects of competition and the rate of change. In other words, imagination and logic make strategy possible. Without them, behavior and tactics are either intuitive or the result of conditioned reflexes. But imagination and logic are only two of the factors that determine shifts in competitive equilibrium. Strategy also requires the ability to understand the complex web of natural competition.”[27]

- “a lack of vision represents a lack of strategic leadership and bodes poorly for the ability of the firm to be a successful competitor in its markets”.[28]

Descriptions and examples of companies that followed visions or insights usually fall into one of several categories.

- <u>Companies creating entirely new industries</u> For example, although large video recoding devices existed for companies, in the 1970s Sony invented Betamax, the small, low cost video copier for attachment to televisions that created the home video industry. Sony was to lose its pre-eminent position, however, because it wanted to be the only manufacturer. The market for video systems grew much faster than anticipated. Several other Japanese firms shared a competing technology approach (VHS) and built the volume manufacturing capacity to displace Sony. Other examples include credit cards, personal music, cellular telephones and personal computers.[29]

[27] Henderson 1989 pg 140.
[28] Simons pg 117.
[29] Researchers have studied whether it is better for a firm to be the originator of the new industry, or be a “fast follower” in entering after the industry has begun to grow. Being first has advantages, but also the greater risks of failure.

- Firms entering an existing industry and reshaping it   Xerox, for example, spent over a decade developing a new technology to reproduce documents. The first Xerox machine was introduced in 1960 and redefined the copier industry. Other examples include how solid state electronics enabled companies to enter product markets for watches, calculators, cameras, and telephones.

- Firms within an industry changing the industry in some fundamental manner   In the 1960s IBM introduced the 360 series computer. Unlike preceding systems the 360 could be upgraded as businesses grew and was tailored for business (not scientific) uses. IBM not only saw that computers had business uses, but also realized that customers were unfamiliar with computers, suspicious of their reliability and reluctant to make large investments. So, IBM leased computers and developed a sales and support staff that would be immediately on site to insure operations.

Such changes as those above often contain characteristics that are interpreted as “vision” or “insight”. They can involve detecting a major shift in the external environment and understanding how that may be exploited. They can involve an enthusiasm for a new technology or a new business approach and gradually figuring out how to employ it. They can involve a dedication to a single belief (e.g., Sam Walton’s commitment to everyday low prices in stores in small towns). They can entail seeing a weakness in a market or industry and conceiving a way to exploit that. They can involve taking major risks that a new type of demand can be created where none existed in the past.

On the other hand the value of vision rests on its implementation and that confuses the issue of its importance. An idea can be derailed for any number of reasons: failures of implementation, actions by competitors, obstacles in the technology, etc. Timing can be everything. Polaroid was near bankruptcy when instant photography caught the public’s eye and made Ed Land a visionary. Visions can be over extended. The failures of Enron and Long Term Capital Management were stories of taking successful approaches from one business and applying them to businesses where they were inappropriate. Do visions fail because they are poor, or because the implementing strategies are bad, poorly implemented or ill-timed? Moreover, millions of firms have succeeded ---- including some very large ones ---- based on persistent hard work. Research in the past several decades suggests that a company’s success can often emerge from the collective efforts of many people in dealing with the company’s environment. The role of “vision” can be hard to pinpoint.

In defense or military strategy there is also an emphasis on insight and vision, perhaps even more so than in business strategy. Authors cite concepts such as deterrence, containment, centers of gravity and precision attack as major visions that shaped strategy. Visions also seem to emerge in a variety of ways, usually the collective experiences of a number of people (even though they may be identified with a single person). They also include poor ideas that are implemented for some period of time (e.g., the Army's pentomic division and the Air Corps vision of strategic bombing without escort). Similarly to business strategy it is not clear whether visions precede or emerge with strategies, and whether their success or failure are always traceable to the vision or to its implementing strategy.

Action and Implementation

Action is a major component of business strategy. Academics, consultants and others have developed numerous means to conceptualize and develop strategies (e.g., portfolios, time based strategies, core competencies, etc.) But as elegant and insightful as these methods can be, they produce no useful results unless they are implemented. Strategy remains an abstraction with no use for business unless it is coupled to action, and that judgment has been a constant since the discipline began in the 1960s.

- "Chandler (1962) and Andrews (1971) emphasize ends and means in their concepts of strategy. Hofer and Schendel …. compared thirteen authors' conceptualizations of strategy and strategy formulation, and all included ends and means….. Ends relate to what an organization desires to achieve …. Means are action oriented, typically defining the steps an organization intends to take to achieve or reach its desired objectives or goals … Synonyms for (the word 'means') range from strategies or policies, to alternatives, programs or action plans, and even resource allocation activities or decisions made by firms."[30]

- "Over the past two decades, management theorists and economists have devoted a great deal of energy to understanding strategy formulation in competitive markets. They have developed techniques for analyzing the relative economic advantage of differentiated products and service offerings, but they have paid relatively little attention to understanding how to implement and control strategies. Yet the best laid plans are worthless unless business managers understand the tools and techniques of strategy implementation."[31]

- "the design model (of strategy), a prescriptive framework widely used as a guide for practice and teaching (Andrews, 1971; Porter, 1980; Barney, 1997) …. describes the strategic management process (as having) two main subprocesses --- strategy formulation ….. (and) … strategy implementation. Strategy implementation comprises a series of primarily administrative activities and includes the design of organizational structure and processes.… Strategy includes both goals and actions …. Actions are a general label for bundles, sets or sequences of resource deployments, initiatives, responses, moves, deals, investments, and developments." [32]

[30] Brews & Hunt 1999 pg 891.
[31] Simons' book pg 3. Simons identified four categories of techniques which research showed were used by managers in implementing strategies: belief systems, boundary systems, diagnostic control systems and interactive control systems. His 1994 article described these more succinctly. Another major approach to implementing strategy was also introduced in the 1990s by Kaplan, who created the balanced scorecard (see the bibliography). Kaplan specifically laid out ways to decompose a strategy into a series of actions that would take place and be measured.
[32] Farjoun pg 564 & 571.

Strategy is about prescribing the most important actions for a firm to take to obtain long term advantage. These prescriptions set boundaries for behavior. Action is about choice, and there is widespread agreement that strategy both instructs on "what to do" and "what not to do". Even goals, as broad as they can be, must have some tangible sense for expected behaviors.[33]

- "Strategy renders choices about what not to do as important as choices about what to do. …… A sustainable strategic position requires tradeoffs."[34]

- "Senior managers can … specify the range of business opportunities in which they do not want the organization to expend resources…… managers formalized and communicated definite strategic boundaries. For example, we will not undertake any activities that do not fit (a class of products) …. We will not expend any resources on developing (certain types of products) …. We will no longer offer … promotions .."[35]

Some believe these actions can be generally broad, and focused on key variables for success.

- "The substance of any strategy is summed by its building blocks: a half dozen or fewer key concepts and actions that define it. Pinpointing the building blocks forces leaders to be clear as they debate and discuss the strategy…… Every business has a half dozen or so critical issues --- the ones that can badly hurt it or prevent it from capitalizing on new opportunities or reaching its objectives."[36]

- "managers …. pick a small number of --- significant processes and craft a few simple rules to guide them …… for example, Sun Microsystems' focus on developing new products …… (another firm) has developed a focus on customer care…"[37]

Some believe that actions have to be prescribed in detail.

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[33] One test of goals and policies in strategy is the "no test". If stating the opposite of a goal makes no sense, then the goal is not useful in a business context. It can be an overall principle of action or something any firm should do, but not be a source of distinction. For example, when companies set their top level goal to "make profits" or "increase stock price", the reverse makes no sense. Similarly in defense strategy a military might set a goal of "defeating the enemy", but "losing to the enemy" makes no sense.
[34] Porter pg 77 & 68.
[35] Simons pg 48 & 134.
[36] Bossidy pg 182 & 201.
[37] Eisenhardt pg 109-111.

- "Many companies still steer divisional strategy based on aggregated data. This big-picture practice leaves deeper levels of detail unseen, often giving managers a misleading view of performance."[38]

- Because both its evolution (formulation) and its implementation depend on the detail of daily activities, managers need a strategic perspective even in seemingly tactical situations. Managers can in essence be strategic in what they do or don't do.[39]

- "Here is the fundamental problem: people think of execution as the tactical side of the business …. This idea is completely wrong. Execution … has to be built into a company's strategy, its goals and its culture. ….. Leaders (have) placed too much emphasis on what some call high level strategy, on intellectualizing and philosophizing, and not enough on implementation."[40]

Over the past several decades formulations of business strategy have intruded more and more into the tactical or operational aspects of a firm. As industries and markets have become increasingly complex and competitive, companies have encountered sudden declines in advantages because of seemingly "tactical" actions down in their organizations or outside their organizations. Strategic failures have occurred because of one or two events.[41] Indeed, "tactical" mistakes may raise questions as to whether the strategy has actually identified the most important actions.[42]

From the volume of studies one could conclude that action or implementation is far more important than some major concept or set of objectives. "A brilliant strategy…. can put you on the competitive map, but only solid execution can keep you there."[43] Indirect evidence of this is in the outpouring of books and articles since the early 1980s on what underpins the long range success of firms, and a similar outpouring on innovation and change. These tend to identify new strategic ideas as a factor in success, but then proceed

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38 Baghai 2009 pg 89.
39 Mintzberg 4409, 4429, 4640.
40 Bossidy pg 6.
41 For example, in Chicago poor airline maintenance caused a DC-10 to crash on takeoff when an engine fell off. The picture of the aircraft rolling over to hit the ground was instrumental in ending the product line in major airlines, and relegating its use to a freight carrier. Although its manufacturer was not responsible for the maintenance, the one crash effectively ended Douglas' role in commercial jet aircraft. In defense strategy one could identify the video tapes of handling POWs or sudden losses in city fighting in Mogadishu as events that arguably reshaped American defense strategy at the time of their occurrence.
42 For example, studies of how the allies performed in World War II suggest that the ability to learn from mistakes and successes and rapidly make needed changes in combat units was a key difference between American and British ground forces. Would such behaviors have been identified as a core element of strategy and tactics (or doctrine)? (see Doubler or Overy)
43 Neilson et al 2008 pg 61.

to focus mostly on actions in areas such as organizational structure, incentives, leadership, and disciplined operations.[44]

Action and implementation pose several challenges for a strategist. A strategist has to be as insightful about the internal aspects and management of his company as he is about the firm's external environment and strategic options to deal with it. First is the demand to translate broader goals or concepts into steps for the organization, and to determine how to cause those steps to be implemented. That requires an understanding of the impact of the strategy on various parts of the organization and an understanding of the current capability of those parts to act. Second is the limitation on the strategist to compel action to occur. The best situation is when the leader of the organization focuses on strategy and commits major portions of his time to it.[45] He is the strategist. Under other conditions the problem for those involved in strategy is to maneuver the organization into major changes and capture the involvement of such leaders.[46]

Comparing concepts of strategy between business and government shows a similarity of views that action is linked to strategy.

- "Strategy is all about <u>how</u> …… leadership will use the <u>power</u> (means or resources) available to the state …. Strategy provides direction for the coercive or persuasive use of this power …. It seeks to control the environment as opposed to reacting to it. ….. policy dominates strategy by its articulation of the end state and its guidance... "[47]

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[44] See, for example, books by Bower, Collins or Nohria on how firms succeed; books by Nadler, Hurst, and Gabarro on instituting change; and, books by Khurana and Kiechel on the evolution of thought about action and implementation in strategy. Kotter's article is one the best short summaries of key steps in instituting change. One can also see indications of how much more important actions can be than goals or concepts in the histories of companies such as Southwest Airlines, Google, Microsoft, and Wal-Mart. Their founders' ideas were clearly important, but execution and continuous adjustments made those ideas a success.

[45] Researchers have suggested that in periods of strategic change the leader must devote 25% or more of his time to it. Hamel described the difficulty of this being achieved through a set of questions to leaders along the lines of "what percentage of time do you spent thinking about the future & what percent of that time do you spend discussing that with others in the firm?" He concluded that "on average, senior management is devoting less than 3% of its energy … to building a corporate perspective on the future." (Hamel pg 3-4)

[46] A subtle aspect of the importance of this linkage is that if the potential for action is very small (e.g., the leadership is too busy or shows no dedication to action), that in turn may preempt strategic thinking. Why, in essence, should a strategist expend energy (and perhaps personal capital within the firm) developing lines of thought that have almost no chance of being used? Why not just re-affirm the existing strategy or the view of strategy of senior managers? One can wonder how often the absence of new ideas in a firm is the result of people being raised in the firm and unable to think differently, and how often it is the result of such people having ideas but believing there is little chance for acceptance.

[47] Description of strategy used at the Army War College

- "(Strategy) outlines what to do to meet or anticipate the future … Presents a range of responses to deal with unforeseen events …. Provides guidance for how to act over a range of situations."[48]

- "Modern works on strategy, especially those written by a civilian … readily can mislead an unduly credulous readership into believing that the key to strategic competence is conceptual grasp. Such grasp is indeed essential. …. But mastery of the theory of strategy… is not synonymous with mastery of strategy. Michael Clarke explained in a pithy maxim that "[i]t is easy to think strategically, it is hard to act strategically.… This is close to brilliant insight.." [49]

Strategy in defense also emphasizes the coupling between top level guidance and lower level actions, although it does not seem to call for high levels of detail.

- strategy is hierarchical. …. (it) cascades from the national level down to the lower levels.. ….. strategy is comprehensive. That is to say, while the strategist may be devising a strategy from a particular perspective, he must consider the whole of the strategic environment in his analysis to arrive at a proper strategy to serve his purpose at his level. He is concerned with external and internal factors at all levels. …. the strategist must have a comprehensive knowledge of what else is happening and the potential first, second, third, etc., order effects of his own choices on the efforts of those above, below, and on his same level." [50]

- "Tactical feasibility drove strategic choice. This is an enduring fact about warfare. Strategic success has to be forged from tactical advantage. If the latter is unattainable, for whatever blend of reasons, then strategy is mere vain ambition."[51]

However, there seem to be three subtle and major differences.

- First, the actions that are called for in defense strategy can be at such a high level of generalization that they lack the specificity to impose behaviors or to monitor and assess implementation. In other words, while strategy may seem to call for action it can lack the precision to cause it to occur. An exception is military combat operations, where objectives cascade down into assignments to specific units.

- Second, implementing strategic change seems to be considered far more difficult than in business. Both business and government see change as challenging, and

[48] Drezner pg 72, 59 & 165.
[49] Gray Schools for Strategy, pg 12.
[50] Yarger describing the view of strategy at the Army War College.
[51] Gray Schools for Strategy, pg 12.

both identify most of the same difficulties that need to be overcome. But those who describe how to deal with such obstacles in business are more upbeat; the literature is filled with specific actions for management to take. In government, there appears to be very little material on specific actions to take; resistance to change seems to be considered more insurmountable. For example, government discussions of strategy may mention the resistance of a group to strategic change, but not provide much in the way of ideas of how to overcome it.

- Third, the public versions of defense and military strategy seem to exclude entire sub-organizations or major practices of the DoD. For example, strategies can include high level objectives but be entirely silent on whether the government's own agencies or its industrial support can achieve those objectives.

Why actions seem less central in defense strategy may based on several factors.

- The political nature of government drives strategy. Goals and concepts may often rest on the interests of constituencies, election interests, or the ideological positions of key people. Translating strategy into specific actions creates the risk of alienating groups or setting performance standards against which people in political positions may be measured by their opponents. Generalization is a means to avoid political embarrassment.

- While government organizations may be officially subordinate to a hierarchy, the stakeholders who can influence their continued existence and daily operations are far more numerous. Consequently, they develop external relationships and internal practices to protect and implement their assigned or accreted roles. Being specific in strategic actions can unhinge these relationships and adversely an agency and its senior leaders.

- To some extent those involved in strategy tend not to be skilled --- or even interested --- in developing actions needed to implement strategy. Many have backgrounds in international affairs, the social sciences or history, whereas strategy has a strong element of management. Some have had long careers in the public sector environments where the focus is on working within the constraints of bureaucratic institutions, not on changing them. They have been trained by experience to view the current ways (and limits) in formulating strategy as the accepted practices. Some have had long careers in the military and have been trained by the War Colleges and military practices to define strategy and to develop it by a set of standard rules or behaviors.

For these reasons, actions flow from defense strategies in an unclear manner. Indeed, many strategy documents are criticized for being defined by the current actions of organizations, rather than establishing actions for them. However, it can also be argued that gradual approaches to change in national security are good. Because so much is at stake in winning and losing, an organization should not radically change its strategy until the new approach has been proven to be better than or at least as good as the existing one. Consequently, strategy may logically be the summation of many actions already developed down in the organization as it responds to changes in its environment.

Fit

The concept of fit --- a consistency between the external environment, the way the firm operates in that environment, and the internal activities of the firm ---- has been an essential aspect of strategy since its inception.

- "One of the most widely shared and enduring assumptions in the strategy formulation literature is that the appropriateness of a firm's strategy can be defined in terms of its fit, match, or congruence with the environment or organizational contingencies facing the firm. Strategic fit is a core concept in normative models of strategy formulation."[52]

- "The importance of fit among functional policies is one of the oldest ideas in strategy. Fit is a far more central component of competitive advantage than most realize. Fit is important because discrete activities often affect one another….. Strategic fit … is fundamental not only to competitive advantage but also to the sustainability of that advantage. It is harder for rivals to match an array of interlocked activities than it is merely to imitate (one part)…….The more a company's positioning rests on activity … with second and third order fit, the more sustainable its advantages will be."[53]

The original purpose of business policy as an academic course in the 1960s was to make students integrate the functional disciplines they were being taught and to apply that integration to external situations facing specific firms. Case method was the primary means to bring out the need for integration and to demonstrate how varied such integration could be.

- "The field of business policy ---- the initial strategy paradigm --- is rooted in the concept of matching or aligning organizational resources with environmental opportunities and threats…… the process of achieving fits begins, conceptually at least, by aligning the company to its marketplace … this process of alignment defines the company's strategy …. (This concept) has historically been multidimensional …"[54]

The importance of congruence between the firm and its environment increased in emphasis in the competitiveness of the 1970s-1980s. Firms rapidly lost their positions to others that carved away parts of markets, that more carefully designed products for specific buyers, or that reshaped the basis for competition. Market conditions drove greater attention to precise positioning. The intellectual currents in business strategy

[52] Zajac 2000 pg 429.
[53] Porter 1996 pg 70, & 73-73.
[54] Zajac 2000 pg 431.

provided new approaches to competing. For example, portfolio approaches led firms to see markets in a more granular sense and enabled firms to confront the demands for specificity in what they offered. The approach of core competencies or core capabilities inherently included the search for unique and lasting internal advantages that coincided with long term demands in the market place.

A major challenge in achieving fit lies within the firm itself. How it is organized, its past experiences, the formal and informal aspects of its operation ---- all affect how well and how fast it adopts to the external environment.

- "you can't craft a worthwhile strategy if you don't at the same time make sure your organization has or can get what's required to execute it, including the right resources and the right people…… An astonishing number of strategies fail because leaders don't make realistic assessments of whether the organization can execute the plan…… No matter how well you execute, the risk of failure increases markedly when ideas you develop don't fit with your existing capabilities, or force you to acquire those capabilities at too high a cost."[55]

The business literature is rich with examples of failures that centered on internal problems within a company, and not its appraisal of its markets. Xerox, for example, in the 1970s made the right estimate on the future of the electronic office and made the investments to develop the first personal computers; many of its inventions were later used by other firms (e.g., the mouse). But Xerox failed to realize that its sales force had been hugely successful at selling a "box", because a Xerox machine only needed to be plugged in and occasionally repaired. The personal computer was a system, a set of components that had to be physically assembled and loaded with software, and users had to be trained. Xerox's sales and maintenance force lacked the skills to do so. Not understanding the lack of fit between the new product, its own sales force and the demands of the new market underpinned Xerox's failure in the second of the two more successful products of the 20th Century.[56]

Fit has historically had two major components, the consistency between the environment and what the firm offers, and the internal congruence with those offerings. In the past few decades a third factor has emerged. Faster rates of change have made "fit" less stable for a firm in some situations. In other words it takes time to achieve "fit" but it is also increasingly difficult to sustain it once achieved. For example, an internal organization may be slower in its adaptation to change than the external market it confronts.[57]

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[55] Bossidy pg 7, 195 & 214.
[56] This is just one of several internal issues that undermined Xerox. See Smith & Alexander.
[57] This was the situation that Kodak encountered, as mentioned earlier. The rate of change in its industry went from a 20 year cycle to a two year cycle, but EK was still organized internally around a 20 year cycle.

For those involved in strategy the concept of "fit' encapsulates the aspiration of strategy, i.e., the shaping of the firm internally, and its products or services at the interface with the external environment, so that a company creates an enduring set of advantages in the market. It embraces virtually all the elements of a strategy, particularly the nature of the product or service offered and the way the company is organized. That requires a strategist to have a strong grasp of the internal operations of the firm. It is not surprising, therefore, that many writers in the past several decades have concluded that the better strategists are ones with extensive, hands-on experience in their respective industries and companies.[58] On the other hand this also creates the potential problem that such individuals will be too narrow in their views because of their background.

In government the concept of "fit" is recognized, although not as clearly or in such a comprehensive manner. The perspective is broad and seems to view fit as more difficult to achieve than in industrial settings.

- "Just as one has to recognize that there is war in general …. but ever variable in its particular character, so too is strategy both general in nature and variable from case to case. Because general theory explains the whole enduring nature of a subject, it is both always authoritative and requires translation to fit within the particular context. It is important to remember the key singular-plural distinction between the one general theory of strategy and the unlimited number of particular strategies that rivals and belligerents devise."[59]

- "Grand strategy …… demands both reliance on theories and the disposal of them. Knowing which to do when requires the ability to see all of the parts in relation to the whole: the vision is not that of a theorist but of a quarterback. For it's only if you know where you're trying to go and what stands in the way that you can make decisions about which theories to respect and which to abandon."[60]

An example of the generalities associated with the concept of fit is that in both teaching material at war colleges and in public strategy documents little or no attention is given to the American industrial base or to major changes in organization within the DoD to support a strategy. For example:

- At the Naval War College a major strategy course has a course plan with over 100 pages of content on strategy, examples, and readings. However, the following words are not in the text: competition, competence, acquisition, budget, and organization. "Industry" appears once in a sentence on Germany in World War II. System appears twice ("political systems" and "delivery systems"). The

[58] See Mintzberg.
[59] Gray "Continuity in Change, and Change in Continuity" pg 8-9.
[60] Gaddis pg 16.

course appears to exclude any discussion of sources of supply for the systems needed to execute a strategy, or the means by which those sources are accessed.[61]

- The 2010 QDR identifies major changes, threats and opportunities, sets the overall objectives for national defense, decomposes those down to specific military organizations, identifies the combat force structure to be emplaced, and discusses resources such as personnel. It has sections for DoD's approach to American industry but the content is very general. For example, "the Department will work to establish requirements and pursue specific programs that take full advantage of the entire spectrum of the industrial base at our disposal …. will establish a more comprehensive and, when appropriate, interagency approach to industrial policy and industrial base issues. ….. will continue to value our allies' capabilities.…" This section assigns responsibility for policies towards American industry to some unidentified other vehicle. "The Department and our nation require a consistent, realistic, and long-term strategy for shaping the structure and capabilities of the defense industrial base."[62]

- There appears to be wide acceptance of an enduring lack of consistency between strategy and implementation. The Navy and the DoD, for example, have had to revise their approaches to surface warfare a number of times in the past two decades because their acquisition organizations, their buying practices and the ship industry have been unable to deliver on new ship programs in the numbers, timeframe or costs specified (e.g., Arsenal Ship, DD-X, DDG-1000, and LCS). This inability to resolve external aspects of strategy (i.e., how to fight at sea) with internal means to support it has been lamented and criticized for over a decade without correction.

The government's approach to fit ---- at least as reflected in these samples of teaching material and public statements of strategy --- appears to consider internal organizational issues and the resources to be provided for a strategy to be subjects addressed elsewhere. The concept of "fit" as used in defense or military strategy seems to be limited to only certain aspects of strategy.

[61] "Syllabus Strategy and War" U.S. Naval War College November 2010- February 2011.
[62] QDR 2010 pg 83-84.

Competition

From the inception of business strategy in the mid-20th century competition has been a major consideration. A company was considered a competitive entity among other competitive entities. Its success depended on its ability to hold at bay, diminish or displace other competitors in markets. In the mid-20th century the principal means for doing so was through products and services and how they were offered. Measures of that revolved around market share, price differentials, and product differences. Advantages could be claimed based on direct comparisons between products or services, or on more indirect means such as affecting perceptions or controlling access to customers.

- "Since the time when Peter Drucker stated that the sole purpose of a firm was to create and keep customers, many managers have embraced a customer orientation philosophy. As interpreted by many of his disciples, this meant that in order to be successful, organizations must ascertain the customer's needs … and then produce the products and services that will satisfy these needs."[63]

The attention to competition increased in emphasis beginning in the 1970s, and accelerated after the 1980s. This reflected the development of global markets, the entry of foreign firms into the U.S. market, the fragmentation of individual markets, and the development of new forms of strategic competition. This focus took several paths.

First, at the product or service level companies introduced an increasing number of ways to separate themselves from others. In part because of government oversight, competition by using price cutting decreased in importance, and other means of product differentiation were emphasized. These included actions in areas such as technology, quality, customization, fast delivery, and after sales support. The speed with which competitors could close down an advantage in another's product remained a constant threat, even through to the present.

- "A company can win or lose serious market share before it realizes what hit it. Johnson & Johnson, for example, pioneered the stent…… In 1997 and 1998 it lost 95% of the $700 million market it had created to competitors who offered better technology at lower prices"[64]

Among many firms the focus on competition permeated daily existence down to lower and lower levels. Harsh warlike terms were used that reflected the relentless aggressiveness of competition (e.g., Nike's "Crush Adidas", or Honda's "Yamaha Wo tsubusu!" – We will crush, squash, slaughter Yamaha). Relative market positions were posted as frequently as daily. Top managers --- even in dominant firms --- talked

[63] Berthon 1999 pg 38.
[64] Bossidy pg 5.

constantly about the threat from other firms (as people have said characterized the way Bill Gates talked at Microsoft).[65]

- At Pepsi, Sculley had each top manager carry a card in his wallet that charted key Nielsen data. “we would pour over the data, using it to search for Coke’s vulnerable points where an assault could be successfully launched … The Nielsens defined the ground rules of competition for everybody at Pepsi…. They were the non-public body count of the Cola Wars.”[66]

Second, companies increasingly focused on changing fundamental aspects of how markets or industries operated in order to defeat competitors. With higher rates of change in technology, products and markets, the ideas of defeating a competitor by building a better product were assisted by ideas for changing the underlying manner in which competition occurred. Companies might accelerate the rate of new product introduction, provide customization where in the past only standard products were offered, or improve quality at low cost. [67] Reshaping an industry was seen as a powerful competitive strategy.

- “for the past 30 years ….. a ‘structuralist’ approach … has dominated the practice of strategy … (in which) the underlying logic .. (has been) that a company’s strategic options are bounded by the environment. ….. Even a cursory study of business history, however, reveals plenty of cases in which firms’ strategies shaped industry structure.”[68]

Third, the concepts of competition expanded to include fights in which a firm could essentially attack other firms, as opposed to just attacking their products or presence in markets. A company might enter an opponent’s home markets to pin down his resources and prevent his having an uncontested market.[69] It could buy a competitor’s suppliers or use governments to restrict a competitor’s options.[70] It might form alliances to exercise

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[65] Collins pg 233.
[66] Simons pg 96 quoting Sculley in 1987.
[67] As examples of using time, in the early 1980s Yamaha attacked Honda’s position in motorcycles; over a several year period this “H-Y War” (as it became known) reduced the cycle time for new models from years to months, and made motorcycles into items of fashion that changed the taste of customers. Toyota’s introduction of new cars every 24-30 months was half the time of GM, and meant that it constantly increased its generational lead over its U.S. competitor.
[68] Kim 2009 pg 73-74.
[69] A major U.S cell phone manufacturer, for example, setup an operation in Japan specifically to keep his Japanese competitors from having a market in which to test products and build production experience without having to worry as much about pricing.
[70] In the 1960s strategic thinking had recognized that companies sat within a set of organizations that could hinder or assist their progress. Ackoff in 1965, for example, saw the corporation as sitting in the midst of a set of stakeholders ---- investors or lenders, suppliers, employees, debtors, consumers, and governments. (Ackoff pg 31) The most widely used framework was introduced by Porter in the 1980s as forces. He

collective strengths against an opponent. It could pretend to form alliances with competitors to delay a competitor's new product introduction. It could announce upgrades to their own products to undermine an opponent's introduction of his.[71]

- "Competition and, therefore, strategy must be understood at not just the business level, but at the level of corporations and at the level of coalitions or clusters of firms."[72]

By the late 1990s competitive was an even greater element of business strategy than in the mid-20th Century. The power of a firm was to some extent measured relative to its competitors as much as measured relative to its satisfaction of customers. Eliminating a competitor could lead to control over not just a set of customers, but to a set of markets, or even a set of industries. Business plans had to have a much stronger section on competition:

- "The strategic plan also contains a short synopsis of the strengths and weaknesses of each major competitor to the business…… (it) explores what kinds of companies are successful …. Are they low cost? Do they have innovative technologies, expansive distribution systems, a global footprint? In other words, what separates (them) from other companies? … This includes what they plan to do, how good are their personnel, how will they respond to us, how fiercely do they compete, how could they form alliances and attack us, how they could alter the competitive landscape with new people, and what are their leaders like?"[73]

- "Winners in business play rough and don't apologize for it……. Toyota has steadily attacked the Big Three … Dell is similarly relentless, and ruthless … Wal-Mart is well known for its uncompromising stance towards suppliers… Hardball players pursue with a single minded focus competitive advantage…. Softball players, by contrast, may look good .. but they aren't intensely serious about winning. …. Hardball players … focus relentlessly on competitive advantage …. Avoid attacking directly … devastate rivals' profit sanctuaries …..

placed companies within a structure that included regulators, customers, competitors, suppliers, and stakeholders. Firms could use these to attack each other.

71 For example, a U.S. cell phone manufacturer opened up operations in Japan, not because it hoped to win market share against leading Japanese firms, but to prevent those firms from having a safe market in which to experiment with new products. Microsoft has been accused of "vaporware", publicizing a new software product that does not exist in order to discourage people from buying a competitor's software that has just been introduced. An aircraft manufacturer delayed its major competitor in developing a new large passenger aircraft by spending several years in discussions for a joint venture to build the airplane. Meanwhile, the firm sold more of its large existing aircraft and delayed investing over $10B on its own new large jet.

72 Prahalad 1994 pg 1- 10 & quote pg 10.

73 Bossidy pg 187-188, 210-211.

> steal any good idea they see … deceive the competition … raise competitors' costs …. (are equally) tough on (themselves) …[74]

The role of competition thus poses a number of difficult questions for those involved in strategy. For example:

- What are the strategic plans of the known competitors? What new competitors may appear in the future? What may be the means by which they compete and try to create competitive advantages? How might they change not just what is sold, but how it is sold, or even the fundamentals by which the industry or a market has operated? How might other sources of power (e.g., regulators, suppliers or customers) be used to disadvantage the firm?

- How could the company defend itself and attack a competitor's products, strategy or overall approach to markets and industries? How could the company attack competing firms as a group? How could it employ customers, suppliers, regulators, etc. as part of that attack? How might competitors respond to a company's actions, and what could the firm do in response?[75]

In defense and military strategy, there is a focus on competition although the term most often used is "enemy". [76] People can certainly debate the adequacy of military strategy, operational use of forces or equipping of forces, but DoD does focus on its competitive environment. It develops weapons and systems to counter threats posed by an enemy and to support how the U.S. plans to operate in war. Doctrine is created to react to enemy plans and operational practices, and to shape the way battles occur in a manner that neutralizes the opponent's approach. The thinking about the enemy focuses largely on what he plans to do, how he intends to operate, and how his forces and systems compare to those of the U.S. and its allies.

There are three significant differences from the private sector, however.

- With few exceptions strategy does not focus on the organization-to-organization nature of competition. Public strategy statements certainly include how the U.S. should use alliances and other means to bring pressure on potential opponents. But there is little focus on specifically attacking the institutions of opponents (or neutrals and friends) and on deliberately affecting their behaviors. For example, how does one cause an opponent's navy or army to equip itself poorly? There may be examples of this in classified activities, and public documents may be too

[74] Stalk 2004 pg 63-71.
[75] "Most companies underestimate their competitors' responses." (Bossidy pg 193) See also Coyne 2009 "Predicting Your Competitor's Reaction".
[76] Strategy formulation "anticipates potential threats, challenges and contingencies" and "understand competitors, allies and neutrals" Drezner pg 70, 87 & 131.

political or public to permit such stated behaviors (e.g., consider the reports of word changes in the 2010 QDR when it discussed China).[77]

- The underlying thinking about competition is defensive in nature. The very use of the word "threat" implies actions against the U.S. and thus the need for U.S. reaction. Much of the justification for weapons and forces rests on describing "threats" that must be countered.[78] Only occasionally is emphasis placed on shaping the competitive environment to benefit the U.S., on causing an "enemy" to act in ways inimical to its own interests, or on having the enemy see the "threat" from the U.S. in a certain manner.

- The volume of research and publications on how to compete is far greater in business than in government. Articles and books are widely available on how to attack another firm's products, its markets, its industries and even its existence. There seems to be a dearth of such work in defense strategy. Statements regarding competition are usually general observations about countering threats, investing in superior technology, building more capable systems and acting to support overall U.S. defense strategy.

In the absence of war or a clear military threat, the views of DoD tend to be somewhat passive when contrasted to the words and approaches in business strategy. Even in teaching material in war colleges the focus on competition seems to be largely on analysis of enemy military capabilities. The broader ideas of an aggressive U.S. approach to affecting opposing states (or allies and neutrals) --- and how that might be done --- seem to receive little treatment. People in government seem to view competition through the narrower lens of overall U.S. strategy or beliefs about what should be U.S. advantages.

[77] One can also assume that buried within military aid and overseas arms sales is a view that this will make other nations dependent on the U.S., or will lead to their losing skills in military systems. There have also been from time to time various efforts to impose costs on opponents (i.e., "cost imposing strategies").
[78] Indeed, a problem for DoD is that it can focus so much on countering threats that the exiting of a competitor (e.g., the USSR), or discovering that a threat is less extensive or capable, can undermine DoD's ability to continue projects.

Forecasting

Forecasting is a major challenge in strategy. It includes making estimates of the external environment, predicting the impact of alternative actions by the firm, estimating how external parties may act (e.g., customers, suppliers, competitors, regulators, etc.), and estimating how well the company itself perform. Moreover, predictions may be explicit (e.g., sales and revenue forecasts), highly judgmental (e.g., competitors' behaviors), and unconsciously subtle (e.g., presuming the work force will support the change). Forecasting as used here, therefore, is broader than a traditional notion of estimating some selective aspect of the future; it embraces the fundamental uncertainties about a company's movement into its future.

Forecasting does not appear to have been considered a major challenge in companies until after the 1940s. Until then markets were largely centered on the U.S., and the larger companies had such major shares that to some extent they controlled their markets. Also, a belief in "scientific" management carried with it a deterministic view of business and thus less concern about uncertainty and the ability of companies to control it. This began changing as worldwide markets emerged.

- As Ackoff wrote in 1981, "When companies were large, dominated their markets and markets were isolated by distance, access to resources, government regulation and slow rates of change, it was feasible for firms to project their activities (e.g., set plans) with reasonable confidence of accuracy. If their forecasts were off, they could even shape the external world because of their size. This began disappearing in the 1950s. Technology and social change have been accelerating. Because of increasing interconnectedness of individuals, groups, organizations, institutions and societies brought about by changes in communications and transportation, the environment of the firms has become larger, more complex and less predictable. As rates of change (have) increased the complexity of problems they (have) created also increased."[79]

- " during the last 10 years (1984-94), competitive space has been dramatically altered ….. The forces were several …. Deregulation … structural changes … excess capacity …mergers and acquisitions … environmental concerns … less protectionism … changing customer expectations … technological discontinuities … emergence of trading blocks…. global competition"[80]

The complexity of industries and markets --- and the rates of change within them --- altered fundamentally the difficulties of forecasting. Any major company ---- and many

[79] Ackoff, writing in 1981. It is interesting that this quote could be seen as just as valid thirty years later.
[80] Prahalad & Hamel 1994 pg 5-8.

small ones ---- increasingly operated on much more elaborate playing field with greater uncertainties.

- Technologies can changes the underlying rates of change in entire industries, and force a rebuilding of an existing firm. Clear examples can be found in the application of solid state electronics in industries as diverse as cameras and inertial navigation. It can be very difficult for a firm to predict the impact of a new technology not in its current repertoire.

- New competitors can emerge unexpectedly in a worldwide market, and they can enter with approaches to businesses that are markedly different. The Japanese penetration of markets using higher quality products based on excellence in manufacturing at low prices is an often cited example. It can be difficult to predict the entry of new competitors if a firm's forecasting efforts focus on its traditional opponents.

- Innovations can change the structure of entire industries in ways that upset existing business models. The worldwide web, for example, has enabled small companies to reach out worldwide for customers without the traditional time and resource consuming demands for a large sales and marketing force.[81] It has made it easier for companies to search for suppliers, and for customers to search for alternative products. Forecasting where new threats can emerge has become more difficult.

- Barriers to entry into industries or markets are potentially more porous than in the past. Firms, for example, can no longer be comfortable in competitive advantages based on geographic location, transportation costs, brand recognition, specialized knowledge, etc. Even forecasting a sustainment of a company's distinctive competence can be unreliable.

- The statistical aspects of forecasting are less reliable. Predictions of future trends as a major path with a tight normal distribution have been replaced with a realization that trends can be multi-modal, have long tails, and that low probability events indeed occur. Furthermore, there are complex problems in linking correlation to causation.[82]

[81] These are thin, distributed markets ---- made up of customers geographically dispersed with special interests.

[82] See Taleb on distributions, and Gladwell on tipping points. Even the assemblage of historical data can involve errors. "Brumbaugh may claim that ….. 'there are no future facts' … but as Chester Barnard has pointed out … the past is uncertain too: 'the significance of history and experience' must be interpreted and that may not be an easy matter." (Mintzberg pg 5744-5781)

A large company also has to think strategically on multiple time horizons. The time horizons can vary widely for customer demands, for product introduction rates, for improving manufacturing, etc. The technology of production might turnover every eight years, but the technology of products might turn every three. Moreover, because most firms use teaming or outsourcing, an individual company has to think about the horizons of these other firms. [83]

Some techniques have emerged to deal with these types of challenges.

- Companies can push forecasting down into their subordinate organizations so that multiple forecasts are made for separate industries and markets.

- They can organize in ways that increase the speed with which they can adapt to changes in their environments. Adaptation substitutes for forecasting accuracy.

- They can adopt strategy methods which more formally account for the uncertainties in forecasting. Some portfolio methods prescribe mixes of businesses with different levels of risk and reward (similar to stock portfolios). Core competence or core capability approaches raise the level of forecasting from specific markets (which can be volatile) to more predictable and enduring advantages (e.g., general skills applicable across markets).[84]

- They can employ scenarios and business games to evaluate the effectiveness of strategies under different potential futures.[85]

- Instead of attempting to predict some trends, companies can search for their early emergence. The problem of forecasting can, therefore, become a problem of searching and detecting.

Forecasting also involves a melding of analysis and judgment, of hard and soft data.. In the formative years of business strategy, the belief was that analysis should be thorough

[83] For example, in the defense industry there was a major decline in the number of solid state fabrication suppliers between 1995-2005 (i.e., those that specialized in producing highly complex devices to a prime contractor's specifications). Of the dozen firms more than half either failed, consolidated or moved operations overseas in order to be cost competitive in markets for larger volume chips. This changed the ability of primes to use competitive forces to keep prices down.

[84] For firms with businesses in multiple markets or industries each of those markets or industries may be on a different time cycle. For example, commercial aircraft businesses require forecasts for decades into the future, but forecasts for sensors or information processing may only necessitate looking a few years ahead. Ideally a diversified firm would also have businesses that move in opposing cycles; one may go through decline while another is increasing in sales.

[85] These can provide some assistance but also bring their own set of difficulties. For example, individuals and groups have great difficulty dealing with more than about three scenarios, and any scenario also challenges people to think in great detail about how the firm should behave.

and objective. However, gradually in the 1970s and 1980s the limitations of this belief became increasingly apparent. A broader perspective was needed, both as to data considered and as to the role of judgment.

- "(From 1965-1985 people generally believed that) Strategic outcomes (could) be explained on the basis of economic analysis. Economic analysis (was) a critical component of strategic analysis…… Mainstream research … had not accepted the complex interplay of public and private policy … or that economic and political analysis are equally important"[86]

For those involved in strategy development, merging objective analysis with more judgmental forms of thinking can be difficult. A company can have a istory of using particular forms of analysis, and be reluctant to change. For example, a company can rely on projected ROI as a key measure to compare the attractiveness of future markets, but ROI calculations can be relatively easily manipulated. On the other hand, in some companies there can be deeply imbedded judgments that override analysis. For example, one reason for IBM's eventual failure in the PC market was its belief that PCs were essentially terminals for mainframes. Finally, the balancing between analysis and judgment is essentially a "balancing", and that may be determined by the loudness or position of the person making the determination.

- "Robert Jervis has shown that people --- faced with uncertainty and incomplete information will often use mental decisionmaking shortcuts that lead them astray. People unconsciously select information that confirms their hypotheses while discounting or ignoring information that does not. They have a hard time seeing the non-events, missing information or possible outcomes that did not occur. Experts may be particularly disadvantaged, because they are trained to think in terms of normative theory and events and thus miss the low probability ones. The problem is increasingly difficult because the amount of information now flowing is so great, while at the same time the pace of change is increasing."[87]

An enduring challenge in forecasting --- especially in today's more dynamic setting for companies --- is that the signals of important major changes are weakest when they are the most valuable to a firm. Research has shown that firms which create markets or enter them first can enjoy long term advantages. For example, they can establish expectations in buyers that affect what later firms must address; they can lock-in suppliers and put later competitors at a disadvantage; they can capture key resources; and, they can set higher initial prices which they can subsequently cut to keep other entrants at bay.[88] As

[86] Prahalad 1994 pg 10.
[87] Zegart in Drezner, pg 120.
[88] Consider the dominance of Microsoft in PCs, Starbucks in coffee, or Apple in online music. Early advantages can also be lost. Sony invented home video recording (Betamax) but lost to VHS because it attempted to retain all manufacturing and could not match the explosion in demand.

markets mature and other firms enter, the options for competitive advantage change.[89] On the other hand following the wrong signals can be costly. Indicators of the future that is to occur are mixed with indicators of the futures that do not occur.

- "Much hard information arrives too late to be of use in strategy making. Information takes time to 'harden', time is required for trends and events and performance to appear as 'facts,' more time for these facts to be hardened into reports, even more time if these reports have to be presented on a predetermined schedule…. Managers cannot wait for information to harden while competitors are running off with valued customers."[90]

Acting on early indicators is difficult for companies. First, it can require management to make major changes in the face of the fact that the bet itself may be wrong. [91] Second, it can mean making changes in current operations that would diminish revenues and profits.[92] Powerful obstacles to action can exist in Wall Street and shareholder expectations, in management's interest in compensation, and in preferences by employees for current business. [93] Third, management can make partial bets from which they can withdraw, but this requires a willingness to halt movement down losing paths.[94]

When one compares the problems in forecasting in businesses to the problems faced in defense or military strategy, there are many similarities. Both recognize their external environments have become more complex in the past several decades. Both see technologies and its proliferation on a worldwide scale as altering how situations and competitors evolve. Both recognize that their respective environments involve a number of participants whose future behaviors are difficult to predict. Being surprised by

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[89] Research has also investigated whether being first to the market or being a follower produces greater returns. Fast followers avoid the initial risk of making a poor choice in entering the wrong market. They can see the structure of the market as it emerges and the details of how customers and suppliers behave. That enables them to formulate strategies with greater clarity.
[90] Mintzberg Strategy Safari pg 70.
[91] Mintzberg pg 4731, 4738, & 4758. For example, following World War II Sears made a bet that the automobile and prosperity would lead to people buying less from catalogs as they drove to stores. It then began building stores in newly arising shopping centers. Montgomery Wards failed to move a quickly, largely because its senior management believed that a major depression would follow the end of the war. It never caught up to Sears.
[92] Christensen's The Innovator's Dilemma.
[93] Both the time period and the detail of forecasts can be driven by the financial organization of a business. Wall Street demands data for its purposes, and the government has laws and regulations to govern reporting of financial results. Companies and even individuals within companies can be liable to criminal penalties for estimates with sizable errors.
[94] CISCO Systems in the 1980s provides an example of this strategy. CISCO's business was in routers for communications networks. The technologies were evolving at a rapid rate and the company could not afford to invest in all of them, some of which would fail. So it adopted the approach of investing in companies --- often small start-ups --- developing different technologies. As technologies succeeded CISCO expanded its investments, and divested others. See Gawer & Chesbrough.

unexpected threats injects itself into any forecast. Reliance on a dominant forecast is seen as risky.

There are several major differences. First, in combat operations the military gives great attention to forecasting the potential actions of the enemy. This is deeply ingrained into decisionmaking on a scale that is not found in most companies. Second, in international and military affairs the government has established a huge intelligence collection and analysis activity to report on opponents (and others). Third, forecasts in business are viewed through the lens of strategic or business utility; planning staffs are disbanded if their contribution to a company cannot be demonstrated. However, in government the organizations charged with forecasting are seen as permanent entities, regardless of their effectiveness.

Organization

In formulating strategy a companies is --- for the most part --- a collection of individuals, groups and sub-organizations, each with roles, relationships, perspectives, priorities, and different types of knowledge or skills. Their approaches to strategy are rooted in these characteristics, incentives, past experiences, and a number of other factors. For the strategist this can mean that firm itself may be as difficult to predict and affect as the external environment of customers, competitors, suppliers, regulators, etc.

There is a close relationship between the discipline of business strategy on the one hand and the discipline of organizational behavior on the other. Both experienced significant growth beginning in the 1950s-1960s. The linkage rests in part on the search for “why do firms succeed?” and the realization that what occurred within the firm could shape its actions in directions that were far less effective than should have been expected. However, in the 1960s that linkage was not fully grasped, and even today ---- at least in companies ---- it may not be well understood.[95]

- “Debates about content and (organizational) process have plagued strategy research. In spite of evidence to the contrary (Bower 1975) the impact of process on strategy and resource allocation is constantly underplayed….. the involvement of all employees … is often underestimated …. (but now there is) mounting evidence (of the importance of) …. process and people.”[96]

- Simons in his research on techniques for implementing strategy identified a number of means by which the organization can defeat strategy, including “building slack into targets”, “gaming the system”, “smoothing data over different reporting periods”, and “transmitting only favorable information”. He noted that in a study of over 400 companies, budget games and manipulation were found to be widespread.[97]

[95] Even today the view of organizations continues to evolve. Articles and books in the 1960s-1970s seemed to focus largely on theories of how organizations as groups of sub-units behaved and examples of how that behavior shaped a company’s actions. In the 1990s-2000s there seemed to be more articles focused at the level of the individual as a sub-unit. The topical areas included incentives, leadership, delegation, motivation, and working together as teams. It probably reflected a variety of emerging thinking in areas such as flat hierarchies, social networks, tacit knowledge, worker involvement, quality, and productivity. The difference between thinking about a company as an assemblage of sub-units and thinking about it as an assemblage of individuals is subtle.

[96] Prahalad 1994 pg 11.

[97] Simons pg 75, 81-83.

- "The unwillingness of an organization to commit to a new strategy represents a serious impediment for managers attempting a strategic turnaround." [98]

The growing interest in organizational behavior and its affect on strategy can be traced to several factors. In the 1970-1980s the challenges of competition from foreign firms (particularly Japanese) led to a number of studies of patterns of success and failure among companies. These often identified internal organizational practices as major determinants.[99] In the same period the increased rates of change in industries and markets led to research into patterns of innovative behavior and implementing change. This led to more insight into how a company's behavior could be influenced by its organization, incentives, past experiences, etc. Finally, the development of core competence views of strategy led to identifying organizational behaviors as a potential source of strategic advantage.[100]

- "If each part of the (organizational) system was made to operate as efficiently as possible, the system as a whole will not operate as effectively as possible. Performance depends more on how parts interact than on how each part performs independently."[101]

- "the essence of strategy is not the structure of a company's position in products and markets, but the dynamics of its behavior. The goal is to identify and develop the hard-to-imitate organizational capabilities that distinguish a company from its competitors. A capability is a set of business processes, strategically understood."[102]

- "(Firms over time establish a) distinctive business ideology – such as the Toyota Way and the Xerox Way. These doctrines contain specific ideas about how to compete, performance measures, organizational structures, and whom to reward.

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[98] Simons pg 137, summarizing the research of Greiner and Hombre 1989. He also notes in observing strategy in several firms that "for the first twelve months of their tenure, managers perceived three urgent demands: overcoming organizational inertia … structuring and communicating performance expectations … gaining organizational allegiance to the new agenda. (pg 133) The organization, therefore, is a major component in both formulating strategy and pacing how long it takes to be fully implemented.
[99] See, for example, Built to Last, The Machine that Changed the World, and any number of books on the U.S. auto industry. The 1980s also saw an outpouring of research on operational aspects of company internal activities, for example, In Search of Excellence and Re-Engineering the Corporation..
[100] The interest in core competences also paralleled an increased interest in the role of tacit knowledge in strategy and competitive advantage. Tacit knowledge is that which is difficult to fully document and replicate. Tacit skills are strategically important because they can be impossible for competing firms to copy.
[101] Ackoff pg 18.
[102] Kiechel pg 228, quoting a speech by George Stalk in the 1990s.

> The belief structures and practices constitute a company's dominant logic. The logic may not always be articulated."[103]

However, the failures of companies suggest that understanding the subtle elements of organizational behavior is still not widely grasped by firms. Part of the problem is that the field itself is a complex mixture of concepts and ideas. Research into organizations ---- while having identified and labeled a number of aspects to behavior ---- have not provided a unified view. Companies have been exposed to issues in the use of processes, incentives, leadership actions, informal relationships, etc. But the ideas are numerous and the linkages among them potentially confusing. Even Simons' research into implementing strategies identified four major sets of behaviors and a number of subsets within those. As important as the field is, it is still unclear how so many factors affect individual firms and in what mix.[104]

Organizational behavior thus confronts strategy formulation with a number of difficulties. It can be difficult to understand how a company actually operates day-to-day and thus what might have to be changed to alter existing strategy. The devil can be in the details, because seemingly minor shortfalls in actions can have major strategic effects.[105] The organization can easily filter out information important to formulating strategy, and impede its implementation. For strategy to succeed it can often require a large number of changes in the organization, from the level of structure, to integrating practices across structures, to personnel assignments, to incentives. Simply devising the list of such actions and obtaining support for them is a challenge. Finally, for certain desired behavioral aspects (e.g., innovativeness or adaptability) there is no formula and the list of steps can be both long and require continuous attention.

The difficulty facing the making of strategy is that organizations ---- particularly large ones ---- are very complex instruments. They can be misunderstood as to how they operate at present, and unpredictable as to how rapidly and how well they will adopt a new strategy.[106] Internally there can be formal processes and behaviors that are well understood, and yet subunits and people will not follow them. There are informal

[103] Prahalad June 2010 pg 36. For a number of years management researchers analyzed Toyota's success in car design and manufacturing and were unable to create a satisfactory breakdown of the "Toyota Way". They had great difficulty dissecting the company's overall organizational behavior.
[104] Much of this paragraph could be applied to the difficulties of concepts and ideas in business strategy. The difference may be that business strategy is seen as an essential function to be performed by a company, in much the same manner as finance, operations or marketing. Organizational behavior does not enjoy the same status of acceptance.
[105] Companies increasingly have faced the blurring between operational or day-to-day activities and strategic impact. The failure of a single component in a product because of a minor design error, or a mistake on a production line can have as bad an effect on a strategy as a failure to invest in sufficient manufacturing capacities or to gain control of a key source of supply.
[106] Mintzberg, for example, raises the point that strategy can be impossible because the organization itself is just too complex. (Mintzberg pg 4928 & 6294)

practices that can be overlooked or misunderstood by those involved in strategy, even for people who have been raised in the organization and affected by those practices.[107] Increasingly, therefore, people have come to realize that organizations are a set of activities that cannot be completely understood, whose actions and outputs cannot be predicted with accuracy, and whose response times to both internal and external events are far from instantaneous or always appropriate.

In formulating strategy in the military or defense context ---- in contrast to the business environment ---- the perspective on the role of organizations is different. As in business, organizational behavior is certainly considered to be important. The literature on strategy in government highlights numerous cases in which organizational structures, practices, experiences, incentives and other factors shaped strategy. However, there are subtle differences:

- Conceptual definitions of strategy seem incomplete in their appreciation of organizational behaviors. The formal descriptions from the war colleges mention the word "organization" but largely in terms of using organizations as instruments to execute a strategy. Whether organizations constrain the strategy, or may even by its practices set the strategy receives little or no mention. However, this contrasts with the literature on strategy which often contains criticisms that the organizations within government impede strategy.

- In general the perspective on strategy seems to view organizational behaviors as external variables. Even the criticisms of strategy see organizational behaviors as constraints that must be encountered, rather than as places for changes to be effected.

- The government --- as will be discussed later --- permits the processes of organizational behavior to control the formulation of strategy to a greater extent than in business.

- Strategies can be developed which the underlying organizations of government do not --- or cannot --- implement. For example, goals can be set in defense strategy which the acquisition organizations of DoD cannot accomplish.

Overall, therefore, the government --- more than business --- seems conflicted over how to treat organization as part of strategy. In business the problem is one of grasping an understanding of how the current organization operates (formally and informally) and then developing actions to alter those behaviors. The research and literature on tactics for

[107] General Motors' inability to produce high quality cars to respond to the Japanese in the 1970s-1980s was attributed in part to the fact that its senior managers drove GM cars. When those were parked at the office, a special crew took the cars, cleaned and maintained them, and returned them to their slots by the end of the day. Top managers thus never experienced problems with their firm's products.

implementing change are large and diverse. In government there is recognition of the role of organization in strategy, but the approach to dealing with it seems largely to side step the potential problems. The research into the subject is similarly more sparse.

Concepts

To assist the formulation of business strategies various frameworks have been developed by academics, consultants and businesses over the past fifty years. Some are the results of research over long periods of time into the core questions of why firms exist and what are sources of enduring success. Some are the product of specific company's experiences. Altogether these provide a variety of ways to look at a company and formulate its strategy.

Some of the more widely known frameworks for understanding strategy involve portfolios, core competencies, value chains and networks. The descriptions below provide examples of these frameworks. There is no standard approach for each.[108]

- Strategy as a portfolio "To be successful, a company should have a portfolio of products with different growth rates and different market shares. The portfolio's composition is a function of the balance between cash flows. High growth products require cash inputs to grow. Low-growth products should generate excess cash….. Products with high market share and slow growth (are) cash cows ….. (those) with low market share and slow growth (are) pets ….. low-market-share, high-growth products are the question marks …the high-share, high-growth product is the star."[109]

- Strategy as core competency "Competitiveness derives from an ability to build, at lower cost and more speedily than competitors, the core competencies that spawn unanticipated products. The real sources of advantage are to be found in management's ability to consolidate corporate wide … skills into competencies that empower individual businesses to adapt quickly to changing opportunities …. Companies (stop) imagining themselves as bundles of businesses making products. …. Honda's core competence (is) in engines and power trains…. Canon's core competencies (are) in optics, imaging, and microprocessors controls …. A core competence provides potential access to a wide variety of markets …

[108] Variations result from differences among researchers on the key variables and from competition among academics and consultants for notoriety and contracts. For example, Bag's invention of the portfolio in the 1970s was followed by competing frameworks from McKinsey, Booz Allen and other firms seeking business from corporations. A strength of these frameworks is their ability to provide a simplifying structure to assess a company's strategic situation. A weakness is that the simplifications can fail to place enough attention on key issues. Often one can see the maturing of the concept over a decade or more as the initial framework is applied to specific companies.
[109] Henderson 1970 short paper pg 35-36 in Stern. This was one of the early descriptions of the portfolio approach. The fundamental idea was that companies had a range of businesses or products; these faced different competitive environments; they made different demands on the resources of the firm: and, they had different potentials for the firm. Rational analysis and judgment should enable top level mangers to choose which businesses or products should have higher priority in the allocation of a company's scarce resources (i.e., cash, management time and best skilled personnel).

(it) should make a significant contribution to perceived customer benefits of the end product …. (it) should be difficult for competitors to imitate"[110]

- Strategy as a value chain "A large and diverse literature now exists on interfirm cooperative relationships … (it) has gained such prominence that it now stands as one of three ways to understand how firms sustain profits …. Strategic and operations management scholars have drawn on this literature to reexamine supply chain relationships. …. Where scholars once argued that a firm may either make a product or service themselves or buy it through the market… they now argue that firms have a third alternative: structuring long-term relationships with suppliers which more closely resemble 'partnerships' than market transactions .. These partnerships succeed when they develop idiosyncratic interfirm relations through investments in specific capital assets, shared know-how, complementary assets, and effective governance mechanisms."[111]

- Strategy as a network "the computer industry and other important industries such as telecommunications, office automation and consumer electronics … (are characterized by) interrelated markets, each producing components of a larger technological system. These industries are also characterized by network externalities…. Network externalities arise when the benefits a user derives from a product increase as others use compatible products. For example, an individual subscribing to a data sharing computer network depends on the number of other users subscribing to that network."[112]

Portfolio approaches in the 1970s provided assistance to top management in the highly diversified companies that had resulted from a merger and acquisition wave in the

[110] Prahalad & Hamel 1990 pg 81, 82-83. This article in Harvard Business Review was at one point the most widely reproduced article in the magazine's history. The piece was the first widespread distribution in the business press of a theme in research that had begun a decade earlier as the "resource based view" (RBV) of the firm. The underlying view of that stream of research was that perhaps the long term success of companies did not rest in sets of products and businesses (this latter view being essentially the portfolio approach). Its success might reside in some deeper set of skills within the firm. The parallel to defense strategy is, for example, whether the enduring strength of the military rests in its weapons and combat units, or in deeper talents for developing the skills of its officers and enlisted personnel, in its capacity to incorporate new technologies, and its ability to adopt more readily than others to different forms of warfare.
[111] Kaufman pg 649-650.
[112] Garud 1993 pg 351-352. In the 1980s research began investigating how the release of proprietary knowledge by companies could affect markets and their competitive positions. Sometimes firms only retained limited control over the technology, as when Sun Microsystems penetrated and grew to a major market position in work stations by enabling other firms to build hardware and software to add to its systems. At other times firms retained strong controls, such as Microsoft's providing access to certain parts of its Windows operating system. Creating open systems in both cases encouraged other firms to invent compatible products and uses, which grew the overall market and created barriers to competition. See books by Shy, Gawer & Cusumano, and Chesebrough.

1960s.[113] Core competencies emerged in the 1980s in part to help firms set strategies in the face of the greater volatility of fast changing markets and threats from Japanese companies. In the 1980s scholars also began focusing on the value chain, partly resulting from the major movement to improve internal operations in reactions to penetration of the U.S. market by foreign firms. Network ideas made their appearances in the 1990s as loose combinations of firms emerged as a means to establish competitive advantage. Across five decades the focus of strategy has grown from just improving the firm itself (1960-1980) to improving it through participation in a set of firms (1980-2010).

A number of other frameworks have also been produced. Sometimes these are approaches that could be applied to all of the four categories above. Sometimes they focus on a particular aspect of strategy. For example:

- Differentiation as strategy "There is no such thing as a commodity. All goods and services are differentiable. … Fabricators of … goods seek competitive distinction via product features – some visually or measurably identifiable, some cosmetically implied, and some rhetorically claimed …. (When the product is undifferentiated as in metals and grains, the seller claims) distinction of their execution (such as) the efficiency of their transaction in their clients' behalf, their responsiveness to inquiries, the clarity and speed of their confirmation."[114]

- Generic Strategies "In coping with the five competitive forces, there are three potentially successful generic strategic approaches to outperforming other firms in an industry: 1. overall cost leadership 2. differentiation 3. focus. Sometimes a firm can successfully pursue more than one approach as its primary target, though this is rarely possible…"[115]

- Time based strategies "Like competition itself, competitive advantage is a constantly moving target…. Today, time is on the cutting edge. The way leading companies manage time -- in production, in new product development and introduction, in sales and distribution -- represent the most powerful new sources of competitive advantage. …. In fact, as a strategic weapon, time is the equivalent of money, productivity, quality (and) even innovation…..[116]

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[113] Large companies in the 1950s, seeing future growth capped in their existing markets, branched into many unrelated businesses. Multiple failures led to a major sell-off in the 1970s.
[114] Levitt 1980 pg 83.
[115] Porter Competitive Strategy pg 35.
[116] Stalk in Stern pg 63. This reproduced his 1988 article in Harvard Business Review. The advantages of using time could be seen in lower inventory costs, less chance that inventories would be outmoded by technology, the ability to shape customers to expect new versions of products, the lowering of requirements to project demand for many years in the future, and the ability to react to surprises by competitors.

- Competitive strategies "competitive strategies (are) the taking of offensive or defensive actions to create a defendable position in an industry, to cope successfully with … competitive forces and thereby yield a superior return on investment for the firm."[117]

So many different approaches to strategy have emerged that some authors --- rather than argue for the pre-eminence of one (often theirs) --- have attempted to classify strategies. For example, Mintzberg identified ten schools of strategy formation: design, planning, positioning, cognitive, entrepreneurial, learning, political, cultural, environmental and configurational.

- "Three (of the ten schools) are prescriptive, seeking to explain the proper ways of …. making of strategy…. (This includes) the 'design school', which considers strategy making as an informal process ….. the 'planning school', (which does not accept) that the process be informal and the chief executive be the key actor …. The 'positioning school', (which) focuses on the content of strategies (differentiation, diversification, etc) more than on the processes ,,, (other schools include) the 'cognitive school' (which) considers what happens in the human head… the 'entrepreneurial school' (which) depicts strategy making as the visionary process of a strong leader … the 'learning school' (which) finds strategy to emerge as a process of collective learning … the 'political school' (which) focuses on conflict and the exploitation of power in the process …the 'cultural school' (which) considers the collective cooperative nature of the process … the 'environmental school' (which) sees strategy making as passive responses to external forces … and the 'configurational school' (which) seeks to put all the other schools into the context of specific episodes in the process."[118]

No tool or framework is clearly the best, and the sheer variety presents a challenge for strategists. First, the frameworks are in themselves a challenge to learn and to understand as their applicability. Those involved in strategy, once they understand a method, may have to educate other members of the firm in the technique. Second, companies often have already adopted frameworks. In the late 1970s, for example, over 70% of the Fortune 500 used portfolio analysis. People become familiar with the technique, and potentially resistant to a different approach.[119] Even the automated information and

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[117] Porter Competitive Strategy pg 34. Porter's discussion of strategy and its elements embraced much of the core thinking on strategy up to his book's publication in 1980. He provided a comprehensive structure for developing a strategy in a period when much of the thinking could be too abstract. One of his major contributions was to give emphasis to importance of "competition" in strategy.
[118] Mintzberg pg 333-346.
[119] Frameworks become a means to control debate and affect the distribution of power within a company. For example, one source of attraction in portfolios was their extensive use of quantitative data, which tended to provide some control over the interpersonal or inter-organizational debates over strategy. Core competencies lacked this level of quantification, and thus could not dampen such confrontations. Also, the framework can affect the power of internal constituencies. For example, differentiation strategies place

accounting systems may have been designed around the framework and hard to change.[120] The strategist thus faces the challenge of using the existing approaches or picking a new one and converting the organization into using it.

In defense strategy there does not appear to be the same rich variety of strategic frameworks. Military strategy for war fighting has diversity (e.g., effects based operations, centers of gravity, etc.). However, much of what is written or taught about defense strategy focuses on a few approaches (e.g., ends, ways and means) or on political-military analyses. Political-military strategy can even become very abstract.

- "During George W. Bush's second term, a number of scholars and ex-policymakers tried to devise new and attractive grand strategies. The result was a pulling and hauling in different directions. The ideas have different labels ---- progressive realism, realistic Wilsonianism, ethical realism, liberal realism --- and their creators hoped to earn fame, fortune, or perhaps a spot on the Obama's administration's foreign policy team."[121]

There appears to be an absence of much research into conceptual frameworks for strategy in the public sector.

- "Despite the excellence of American graduate education and various distinguished doctoral programs in history, political science, and international relations with emphasis on security studies, few deal with strategy. Strategy is many disciplines fused into art and science, with emphasis on the former. It is worth noting that the Royal Military College of Canada in Kingston, Ontario, has a superb Ph.D. in War Studies. ..… (Such a) program would fill a serious void in American graduate education." [122]

- "There is, frankly, very little literature on (the theory of strategy and the making of strategy). The available doctrine has to do with leadership, organization, logistics, intelligence, and operations, but nothing on the making of strategy. The ongoing "transformation," with its emphasis on the sinews of military power, has

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more influence in marketing organizations; core competencies place more power in R&D and manufacturing; and, portfolios place more in finance. Resistance, therefore, can have as much to do with organizational behaviors as with the substantive aspects of developing strategies.

[120] Companies build data bases of the pertinent measures (e.g., sales and profit by product lines). A parallel in government is the DoD's grouping of major force programs (strategic forces, general purpose forces, etc.). To reshape strategy would require new categories and altering the old numbering system. The resistance to such change can be seen in the fact that in over 40 years only one new MFP has been added --- MFP XI, Special Operations Forces.

[121] Drezner pg 9.

[122] Marcella, critiquing strategy as taught at the Army War College. This can be contrasted to the major growth in PhD level research in business strategy since the 1960s. Although DoD spends a major amount of funds for outside research this does not appear to have generated similar levels of output.

> further orphaned strategy. Our experience in Iraq verifies this hard truth. Most of the literature leaves us with a rich lode of theory and military history. Thus, we must rely on proven pedagogical techniques, such as case studies that deal with both success and failure, mentoring from senior leaders known for their strategic creativity, self-study, and writing. At the same time, there is the terminological challenge of distinguishing grand strategy, military strategy, theater strategy, and strategic planning." [123]

Articles proliferate in periodicals and books about national security, defense or military strategy, some of which are very comprehensive and well researched. But they can --- and often do --- elaborate on what is obvious (e.g.., rise of China, terrorism, cyberwarfare, etc.). And, they pose situations and solutions in basically similar frameworks (e.g., national and non-state actors, balance of power, regional balances, economic competition, etc.) That is not to say that occasionally very interesting products do not appear, ones that cause a reader to think about strategy in a different way (e.g., the clash of civilizations, or end of history). An indirect reflection of the absence of research into new conceptual frameworks is that the DoD has largely turned to the business world for frameworks in the past few decades (e.g., copying core competencies and portfolio approaches).

[123] Marcella.

Process

The role of process in strategy development has been a controversial issue. On the one hand, some researchers conclude that major changes in strategy do not occur on a continuing basis and so formulating strategy is unlikely to fit into a repeatable and formal sequence of steps. Strategic changes are triggered by one or more events (e.g., a new threat, change in CEOs, major failure in the company, etc.) Depending on the industry such triggers may occur at intervals of years or decades. On the other hand, another view is that formulating strategy is a more continuing practice (e.g., involving adjusting the existing strategy, developing the next strategy and navigating between the two). That implies some form of continuing process in strategic thinking for the firm. The problem, however, with a continuing process is that it can ---- particularly in large companies --- become so highly structured and formal that it impedes the activities of detecting, responding and formulating new strategy. Thought and process, in essence, can be at odds with each other.

On the one extreme is the view that strategy results from a carefully organized set of activities that proceed in an orderly fashion, tapping the appropriate individual and sub-organizational skills of a company, producing thoughtful assessments, generating alternatives and guiding the selection of the best strategy. On some periodic basis --- usually a year --- the elements of the company evaluate their respective environments, examine their interior strengths and weaknesses, identify opportunities and threats, validate the existing or formulate new strategy, and identify what needs to be done. Analyses are prepared; formal presentations are made; reports are submitted; leading managers gather to discuss options; and, a strategy emerges that is endorsed by the CEO and Board of Directors.[124]

In the early years of business strategy (1960-1970) a large measure of faith was placed in such approaches. It was the period of great confidence in the role of long range planning. GE, for example, was seen as one of its best examples.

- "The 1970s saw the publication of literally thousands of articles in both the academic journals and the popular business press that extolled the virtues of formal 'strategic planning'…. The central messages .. fitted neatly with the whole trend in management education and big business as well as big government practice: formal procedure, formal training, formal analysis, lots of numbers.

[124] In some companies, for example, this level of rigor can lead to the planning function being subordinate to the financial function. With emphasis on near term financial results, and demands in law for reporting major changes in business expectations, the long range plan can become a documentation of the official financial targets of the firm. Broader strategic issues can be easily set aside in the heavy workload of building a multi-year plan in all its detail, and negotiating its components among different parts of a firm.

> Strategy was to be guided by a cadre of highly educated planners .. with direct access to the chief executive."[125]

In the late 1970s companies became increasingly wary of long range planning. Research was ambiguous as to whether such processes had major impacts. Increasing competitiveness and rates of change in markets and industries made long range predictions less credible. Data were mixed in showing any correlation between planning and a firm's financial success. Consequently, companies began to de-emphasize the rigorous processes they had been using. GE once again became a poster child for this discontent, disbanding their highly disciplined approach in the 1980s.

- "Strategic planning ran into trouble in the early 1980s, when the activity was cutback in many companies. Most dramatic was its emasculation at General Electric, the company that 'literally wrote the book on the subject'……. *Business Week* … in 1984 … wrote 'after more than a decade of near dictatorial sway over the future of U.S. corporations, the reign of the strategic planner may be at an end'.[126]

Formal planning created a number of internal organizational problems in companies. Excessive emphasis on scheduled deliverables and meetings drew valuable time from people just to participate in the process. The pace and workload could overwhelm efforts to develop insights and ideas. Demands for rigorous analysis could push aside more intuitive or experiential knowledge. People could become focused on completing the process, rather than on assessing the relevance of its content. The output could be defended by some in a company as valid because it was the result of a process, not because of its substance. Managers could be reluctant to voice objections to the results if the process was seen by upper management as an important activity. [127]

Part of the dissatisfaction with planning also came from a richer view of strategy and how it was formed in companies. Ideas such as portfolios, resource based views of the firm or time based strategies suggested the contents of a strategy could be highly varied. Observing how firms generated strategies showed that a variety of practices could be employed. Those practices were not entirely distinct from one another, but they reflected a different perspective from the top down hierarchical notion of strategy formulation:[128]

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[125] Mintzberg Strategy Safari pg 48.
[126] Mintzberg Strategy Safari pg 63.
[127] Mintzberg's articles and books provide detailed discussions of these types of problems with formal long range planning. See in particular his chapter "The Planning School" in Strategic Safari.
[128] Moreover, in any of these there was recognition that strategy might not be explicitly stated. Strategy was what the organization did. That could be written or not; the written form could even be in conflict with the actual strategy. Explicitness in other words was good, but not necessarily critical.

- Strategy making as an event based activity: Increasingly it was recognized that strategy formulation was driven by events or conditions (e.g., a new competitor or a change in the key technology of an industry or market). Responses had to be formed based on the character of the events, and the process by which the firm created the strategy had to be tailored accordingly. Any process, therefore, had an ad hoc quality to it.

- Strategy as a dynamic activity: Researchers recognized that a firm could have multiple strategies operating at one time --- the past strategy, the future one, and a transitional strategy. In diversified firms there could be very different strategies in different businesses. Some strategies might be stable for years while others might change in a matter of months. Any process had to deal with this dynamic.

- Strategy as an emergent activity: A version of a dynamic process, this view of strategy was that it was not created at one point in time and at one place in the organization. It was formed over time as different parts of the firm reacted to the challenges and opportunities they faced. Because there are many unpredictable aspects about the external environment and even the internal one of the firm, the better strategy could be one that evolved over time.

The tension between an ad hoc and a more defined approach to processes in part reflects the major growth in focus on processes by corporations since the 1970s. Increasing competition in various industries has shown that advantages can accrue to firms with superior processes in product design, inventory management, manufacturing, distribution, etc. Not only have subunits in companies become process oriented (e.g., manufacturing, marketing, finance, etc.), but separate staffs and skill fields have developed around processes (e.g., skills in SAP or Six Sigma). Process improvement efforts, as exemplified by programs such as Six Sigma or Malcolm Baldridge awards, can become hallmarks of successful firms. Not surprisingly, those deeply trained in process improvements can see strategy formulation as a process; their drive to regiment it can easily conflict with those believing it is a more ad hoc activity.

By the turn of the century, the differences between formal and informal processes in strategy development remained unresolved. However, in the research community there seemed to general agreement in a perspective that emphasized a less formalistic set of practices.

- "Strategy is dynamic. No strategy is permanent. Any statement of strategy is made within three context --- existing strategy, future strategy, and transitional strategy ------ Any strategy is contingent --- on what happens in the environment, how others react, how they act independently, and how well the organization implements the strategy….. Strategy is flexible, even as stated, and adapts to the changes that occur in its environment." [129]

- "(Concepts) of strategic planning range from the formalized processes of the 'Synoptic' Model (reflective of the Planning School) to disjointed processes of the 'Incremental' Model (favored by the learning school). According to the Synoptic Model planning is a deliberate, rational, linear process .. where ends are specified first, followed by means…the (strategy comes from a) process fully specified, ripe for implementation through detailed attention to objectives, programs and operational plans of ever increasing specificity……. In contrast, strategy formation according to the Incremental Model is an adaptive, incremental, complex learning process where ends and means are specified simultaneously, or are intertwined…… ends are rarely announced or recorded, and when they are announced they remain broad, general and non-quantified. Means .. develop and evolve over time as organizations learn from environmental interaction."[130]

Moreover, the problem facing strategy formulation is that --- except for small firms with a few key leaders --- strategy is inherently a process (whether formal or informal, ad hoc or scheduled). People and organizations are involved within the firm, and their involvement extends over time. They have contributions to make; their views affect the strategy; and, their behaviors affect implementation. The problem is how to construct a process --- or how to let one be created --- that does not impede developing the strategy. How challenging this can be is contextual ---- it depends on the organization of the company and the style of its people and sub-organizations; it depends on the challenges facing the firm; it depends on the depth of change needed to meet the challenges; and, it depends on the behaviors in addressing those. [131]

Consequently, someone involved in strategy is seldom operating in a clean environment when it comes to processes. That person is more likely attempting to make strategy within an environment where some processes for strategy making have already been established. Because of that he has to maneuver through the practices of people and subunits of the company, using the existing processes where possible, trying to adjust them where feasible, and perhaps bypassing them when necessary. For example, how should he use existing processes to engage the leadership? How should he deal with those sub-units with various past roles in making strategy? What past analytical tools should he use, or attempt to displace? How should he use processes to tap those with major insights and ideas?

[129] Mintzberg pg 2021, 3179, 3375, 3988, 4964, 4970, 4991, 5006.
[130] Brews & Hunt pg 891-892.
[131] Change comes easier to firms accustomed to frequent strategic shifts. It is harder for companies in industries with long life cycles of technologies, products, assets, people skills, competitors and customers.

When comparing the role of process in developing military or defense strategy to that in business, there appear to be many similarities. People are as concerned about the influence of process on the content of strategy. There is an appreciation that strategy can be event driven and can emerge over time. If there are differences between business and government these seem to be in two areas ---- the greater role that process seems to play in strategy formulation in government, and the influence that the political nature of government brings to bear. The two are related.

The government's educational system and internal organizational approaches appear to emphasize disciplined adherence to organizational boundaries and to a sequential and orderly set of activities, from which should emerge a strategy. This has endured for decades, even in the face of criticism.

- "The process (of developing strategy) begins with identifying core national values from which one can derive national interests……(then) we can develop statements of national objectives that are the ends of our grand strategy. … That appraisal then continues with the identification of threats and challenges to those interests. … (then) we must examine current policy to see if we are adequately addressing the protection and promotion of our interests….we must also identify and articulate the other component parts of that strategy …. and conduct a risk assessment." [132]

- "Demands for coordination across a large set of organizations are an inherent and core aspect of the process. ---- (the) large number of organizations makes planning more competitive, coherence more elusive and coordination more difficult. Even Kennan remarked on this decades ago. Strategy has to be coordinated across the organization for acceptance and implementation." [133]

The size and diversity of government organizations also incentivizes a reliance on process. Processes protect agencies. Forecasting futures may be distributed as assignments across many organizations; developing options to reach to these futures may be similarly dispersed across a different set of organizations; other organizations may have to translate this into systems; and, still others may be responsible for funding. Formalized processes become the means to enforce coordination, or insure an organization is not left out. That in turn sets the pace of strategy formation and the content that each organization can provide.

Politics exert a major influence over the process of strategy development. Partially this reflects that defense strategy and national political strategy are intertwined. Partially this reflects that politics is also about winning elections. Elected officials and their political

[132] Dorff in "A Primer in Strategy Development", chapter 2 in Cerami.
[133] Amy Zegart in Drezner, page 119, Drezner p70-73, 16, & 24.

appointees can be focused on satisfying their supporters and punishing their opponents when formulating strategy.

- "Politics are a core aspect of the process …. The President has more inherent flexibility in foreign affairs and defense than in domestic. Public moods, interest groups, etc. limits options. Consensus is built through bargaining rather than persuasion."[134]

- "Strategy is very difficult for many reasons, one of which is that it is neither a question of politics nor fighting power, but rather the conversion of military effort into political reward…… Because strategy is hard to grasp as a concept and exceedingly difficult to do well, it is frequently the case that governments carry out policy (meaning politics), and they order fighting, but no one really connects the two with consistent purposeful direction; there is a vacuum where strategy ought to be." [135]

Major strategy development activities provide examples of the prevalence of process in government. Planning in PPBS, the QDR, and the formation of the NSS or NMS are all carried out according to timetables, and with the involvement of specific organizations. Adherence to processes is maintained even in the face of strong doubts about the quality of their results. The examples of good strategy most often cited are not products of these efforts, but are identified as singular outputs of a few individuals (e.g., containment), the emergence of concepts over decades of intellectual struggle (e.g., deterrence), or the products of the NSC/White House process.[136]

The enduring power of process over content in government can be seen in the fact that its force seems to have diminished little in the past forty years or more. Military schools still teach process oriented points of view. [137] Major strategy documents are still produced with elaborate timetables and coordination practices. Maybe even more troubling is that --- at the highest levels of government --- people still call for coordinated planning processes and products.[138] Such comments may only be occurring because the

[134] Drezner pg 163-164.
[135] Gray pg 9.
[136] These are unscheduled, top level led efforts and often classified. In other words they have many of the attributes of business strategy development (even if they only produce policies which may or may not be well implemented as strategies).
[137] Certainly the educational practices discuss the messy manner in which strategy can evolve, and uses cases that undoubtedly reflect this. Why the educational process does not take a more unstructured approach is probably the result of several factors. Military schools have a highly structured lesson plan approach; creating a course in which one could not identify specific learning is probably difficult. Teaching how to think strategically without a formula --- e.g., as was done at Harvard in Business Policy for several decades ---- demands great skill out of the faculty.
[138] "There also needs to be a better executive branch wide process, systematically integrating policy planning across State, Defense, the intelligence community, Treasury and other key departments and

authors know that political and organizational behavior demands giving lip service to such processes. Or, it may be that originators of such recommendations have been so acculturated by their education and experiences in public sector work that process has a hold on strategy akin to what planning had on business in the 1970s.

agencies and structurally linking them to the National Security Council (NSC)." (Jentleson in Drezner pg 69)

People

It is clear that formulating strategy is considered to be a demanding intellectual exercise, either as an individual or a collective activity.

- "This research tells us that strategy making is an immensely complex process involving the most sophisticated of human cognitive and social processes. We know that it must draw on all kinds of informational inputs, many of them nonquantifiable and accessible only to strategists who are connected to the details rather than detached from them. We know that the dynamics of the context have repeatedly defied any efforts to force the process into a predetermined schedule or onto a predetermined track. Strategies inevitably exhibit some emergent qualities, and even when largely deliberate, often appear less formally planned than informally visionary. And learning, in the form of fits and starts as well as serendipitous events and the recognition of unexpected patterns, inevitably plays a key role, if not the key role in the development of strategies that are novel. Accordingly we know that the process requires insight, creativity, and synthesis, the very things that formalization discourages"[139]

An early perspective on business strategy was that top management was the instrumental force, and should provide leadership in generating great ideas, in leading the formulation of strategy, and in ensuring its implementation.

- "many well-known discussions of strategy invoke the image that strategy is a course of action consciously deliberated by top management (e.g., Chandler, 1962; Andrews, 1971)."[140]

- "(A leader) in a firm that competes through superior strategy …. (should be) the great strategist --- brilliant, capable of seeing what others do not see, and possessing considerable insight into environmental threats and opportunities…. By comparison, the leader in a firm that competes through strategy implementation needs to be an 'organization man' --- a great organizer and motivator of people in their day-to-day activities."[141]

Imbedded in this view is an observation by some researchers that strategy requires a set of mental skills and broader understandings that only a few people may possess.

- "Research by Quinn (1980a), Burgelman (1983e, 1988), Pascale (1984) as well as our own work (Mintzberg, 1978, 1987) … among others, paints a very different

[139] Mintzberg pg 4140-45 (electronic book).
[140] Noda 1996 pg 159.
[141] Egelnoff 1993 pg 45.

> picture of the process (of developing strategy) … This research tells us that strategy making is an immensely complex process involving the most sophisticated, subtle, and at times subconscious of human cognitive and social processes. We know that it must draw on all kinds of informational inputs, many of them nonquantifiable and accessible only to strategists who are connected to the details rather than detached from them. We know the dynamics of the context have repeatedly defied any effort to force the process into a predetermined schedule or onto a predetermined track…. We know that the process (of creating novel strategies) requires insight, creativity, and synthesis."[142]

Evidence of this uniqueness of skill can be found in the stories of individual leaders in companies, who have been credited with shaping strategic successes, and in management development programs in companies such as GE, whose screening for successful leaders has populated the top ranks of many firms. Also in the 1960s-1970s evidence of unique mental skills can be seen in the fact that the best students in major business schools were hired by consulting firms that were building a new major market in business strategy. Indeed, most of the early thinkers and writers on strategy in consulting firms such as BCG and Bain came from a handful of the leading business schools.[143]

Management has been considered the one body of personnel that should have the breadth of knowledge of the organization and its environment to understand the necessity for strategy and the challenges of developing and implementing it. They are most likely to possess the skills at formulating strategy. On the other hand, research has shown that these same managers can be obstacles to producing strategy. They can lack the necessary long term perspective, in part because their progression through the organization has been based on near term performance. They can be action oriented, not conceptually oriented. They may tend to see the future through the lens of their past experience, or resist strategies that would undermine their position in the firm or the position of their organizations. And, they can be busy in day-to-day operations, and have little time to work on strategy.

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[142] Mintzberg pg 4137. Mintzberg describes strategists using words like "craftsmen" (pg 2032), "special minds" (pg 5383), "brilliant and intuitive" (pg 4056, 4121, 4633, 4717), "less analytical" (pg 5370), and "visionaries" (pg 4247, 4254). He describes them as people who can detect signals in noisy environments (pg 4731) and have practical experience (pg 4077, 4234, 4633). Strategy, in his view, is about the synthesis of data, experience, judgment, not about the focusing on "objective" data intense analysis alone. (pg 5728). See also his articles in 1976 and 1987. While these comments suggest certain kind of people, he also says that strategy formation is "rarely spontaneous" (pg 5611), often emerges from within the organization, is accomplished through learning (pg 5137, 4866) and involves competitor analysis (pg 6716), external analysis (pg 6697), organizational analysis (pg 6735), and analyzing alternative strategies (pg 6789).. So there seems to be a path of analyzing, and learning through experience which would enable individuals and groups to find insightful or visionary aspects of a new strategy.

[143] These essentially are filtering mechanisms to identify people with these skills. It is unclear to what extent these methods identify the presence of the skill and to what extent they develop the skill.

- "The nature of managerial work favors action over reflection, the short run over the long run, soft data over hard, the oral over the written, getting information rapidly over getting it right. These tendencies … drive the manager to overlook analytic inputs, which also have an important role to play in the strategy process."[144]

- "Although companies find it difficult to change strategy for many reasons, one stands out: strategic thinking is not a core managerial competence at most companies…… Executives hone their managerial capabilities by tackling problems over and over again. Changing strategy, however, is not usually a task that managers face repeatedly."[145]

However, in the past thirty years a more distributive view of strategy development has emerged. Research has shown that strategy can begin and mature within a company, but not necessarily at its top level. Top level leaders, rather than being the source of strategy, can be the ones who create the organizational situation within which strategy can be developed.

- "An explicit recognition of inherent organizational complexities .. (and) 'unpredictable' and 'uncontrollable environments' …. have led some strategic management scholars to describe how strategy is actually formed instead of prescribing what it should be. Findings from their empirical studies suggest that strategy is, more or less, emergent from lower levels of organizations (e.g., Mintzberg, 1978; Pascale, 1984; Mintzberg and Waters, 1985), …… From this strategy process perspective, strategy is 'a pattern in a stream of decisions and actions.'…."[146]

- "(in developing strategy the) involvement of all employees … is often underestimated …. (there is) "mounting evidence" (of the importance of) …. process and people."[147]

- "Not everyone can learn to be good strategic thinkers …. But by working in a group, guided by a leader who has a comprehensive understanding of the business and its environment, and by using a robust dialogue that's central to the execution culture, they can all contribute something…" [148]

[144] Mintzberg pg 5883.
[145] Christensen 1997 pg 141. He also remarks that companies are increasingly outsourcing strategic thinking to consulting firms because of the high cost and low return for having a strategy staff.
[146] Noda 1996 pg 159.
[147] Prahalad 1994 pg 11.
[148] Bossidy pg 186.

- "A charismatic visionary leader is absolutely not required for a visionary company and, in fact can be detrimental to a company's long term prospects. Some of the most significant CEOs in the history of visionary companies did not fit the model of the high-profile, charismatic leader …. Like the founders of the United States at the Constitutional Convention, they concentrated more on architecting an enduring institution…"[149]

Several factors have led to this view of distributive and emergent nature of strategy formulation. Strong hierarchical organizations, distributed geographically and diversified across industries and market, have been shown to be unable to ensure top managers can have the information, judgment and speed of action to keep the firm ahead of competitors.[150] Companies have found themselves involved in complex technologies, with operations spread across continents, important ties to other firms, and vulnerabilities to attacks from unexpected quarters. Opportunities and risks can occur in surprising ways. Responding or anticipating these situations has required greater decentralization of strategic choices. Some authors have even posited that large organizations can be unmanageable because of the complexities of their structure and their environments. Dispersal of strategy formulation is just one sign of that.[151]

If strategy can emerge in a more distributive manner, the unique mental skills might be more widely distributed, or might not even be necessary. What can be essential is experience, precise knowledge of the external environment, an understanding of the firm itself, and tenacity. Those individuals closest to their functions (e.g., operations, finance, personnel management) or to their markets (e.g., product divisions) can be in the best position to see important long term trends, weaknesses in their competitors, changes in market structures, the emergence of important technologies and practices, etc.[152] Evidence of this can be seen in the successes of major companies (e.g., Wal-Mart) where the creators do not seem to have had unique strategic skills, but were strong in operating

[149] Collins pg 7-8 This study compared eighteen pairs of companies – number one and two in their industries --- and asked if the difference between being first or second made a difference over periods of decades. For example, Boeing was compared to McDonnell Douglas, Ford to GM, and GE to Westinghouse. Researchers found evidence that the leading firms produced significantly better results than the second firm. They then asked what accounted for the difference. Both first and second ranked firms had high profile leaders from time to time, and so they concluded that charismatic leadership was not a reason for the difference in ranking. They concluded a difference was that top level leaders in top ranked companies built great organizations.

[150] This may not be true for firms in single industries undergoing relatively slow rates of change. Firms in extractive industries (e.g., coal, oil and natural gas) can be geographically dispersed but the slow rate of change in market forces permits a more centralized formulation of strategy.

[151] "there is the situation where no one can hope to think strategically: the organization is simply too complex to develop viable strategies…… Some organizations are simply too big and/or too diversified." (Mintzberg pg 4929)

[152] On the other hand, much like the problem in management's role in strategy, these individuals can also be so involved in their daily activities that they may overlook key pieces of knowledge or fail to react appropriately to them.

the firm. Also, the fact that strategies can emerge over long time periods suggests that abilities to observe, test and adapt are more important than being strategically insightful.

One reason why strategy is difficult is the tension between these two perspectives and their implications for how a company should operate. If strategic thinking is a unique skill, then the task of a company is to find those individuals, to provide them the knowledge of the firm and its environment, and then to position them in the firm to provide strategic leadership. If those talents are more widely distributed --- or in fact are more about the capacity to detect and understand --- then the challenge for a firm is to educate lower levels in how to think strategically and to establish processes to support their strategic activities. The problem for those involved in assembling the strategy of a company is how to access this distribution of knowledge and ideas, and to prevent the important issues from being lost in the noise of information flows or the behaviors of organizations.

The question of strategic mental skill is also interwoven with other factors. Types of talent in strategy formulation are highly contingent. A rescue or dramatic adjustment, for example, requires different talents from sharpening an existing strategy. The former may require more outsiders who can see the company and its environment from a different point of view; the latter situation may require individuals who are steeped in knowledge of a company's operations and its markets. The fact that companies can succeed because their leaders persist in improving operations, while others fail with interesting concepts but poorly executed, also suggests that sheer strategic intelligence may be far less important than intelligence at getting things done. A difficulty in formulating strategy is that research does not point conclusively to one type of person with certain talents as being the continuing source of successful strategy.

In government there seems to be a similar struggle between the two different views of how strategy is developed and what level of special skills are needed.

On the one hand is a view that strategic thinking skills are unique.

- "Inductive reasoning is only one attribute of successful strategists. They must also exhibit: creativity, curiosity, confidence, high intelligence without subject fixation, ability to collate and make sense out of massive amounts of data, great and diverse intellect, thorough knowledge of the means, intuitive understanding of the ends. The first four traits are either inherent or not. For the last four, there is education. We place creativity at the top because crafting strategies, like war itself, is an art. We posit that educating an officer to be a strategist is for naught if the first four traits are not present." [153]

[153] Bethel pg 88.

- "For American military officers, the principal challenge in improved operational performance is making the intellectual transition from tactics to operational art. Many officers, perhaps most, will find this a difficult transition, and the mental agility to make it does not seem to be something that can be taught at command-and-staff or war colleges. If this selectionist view of the variance in human cognitive skills is correct, then providing a means of identifying officers who can cope with the wicked problems of operational design offers the most practical way of institutionalizing competence in the US military above the tactical level."[154]

There are various indirect indicators to support this view. For example, books credit specific political or military leaders with unique strategic decisions that have shaped national security. While rigorous processes such as the QDR are seen as questionable strategically, the White House/NSC mechanisms ---- selective in its participants --- have been identified as valuable. That selectivity suggests that people believe that thinking strategically is a unique skill.

On the other hand there is evidence that the capacity for strategic thought may be a more widely possessed capability. Major national security strategies often seem to have taken years to be formed and articulated (e.g., consider the emergence of ideas in nuclear deterrence). Strategies have emerged from failures (or too limited a success) and from the efforts of a number of individuals (e.g., the change in strategy in Iraq in 2005-2006). That suggests that ---- as in business --- strategy can come from a number of people over time. The military services have also struggled for decades with the idea of creating special career fields in strategy; that implies that it may be a skill that can be learned.

[154] Watts pg 76 in Gray's School for Strategy. On page 1 Krepinevich and Watts are further cited as stating "There is scant evidence to date that professional education or training are at all successful in inculcating strategic insight into most individuals. Instead, the best we can do is to try to identify those individuals who have this talent and then make sure that they are put in positions in which they can use it to good effect."

Summary, Speculations and Observations

Strategy in business is difficult for a number of reasons --- the intellectual demands of its contents, its dependence on the organization, the close link of its specific formulation to a specific situation, the manner by which it is developed, its lack of stability over time, and its probability of success. While there are innumerable ideas about how to understand and formulate it (often derived from in-depth research), there is no standard formula; indeed, the volume of research and ideas can actually add another intellectual challenge to it. Moreover, there are differences of opinions (once again supported by various pieces of research) as to whether strategy emergences from a few brilliant minds or the hard work of many, whether it appears in short order or emerges over time, and whether it occurs hierarchically from the top or surfaces in the actions of many people deeply buried in the organization. Finally, the research suggests that strategy is only occasionally successful over long time periods. Most firms fail to sustain their market positions in so short a period of time that any strategy --- once established --- can begin to require adjustment almost immediately as competitors react and environments change.

The intellectual demands of strategy are challenging:

- Predictions and estimates about the future are a core aspect to strategy. The likelihood of errors then demands thinking about ways to act when those futures do not occur as forecasted. Tools help (e.g., scenarios, simulations, probabilistic forecasts), but people have great difficulty thinking beyond a handful of alternatives, and probabilities can lack a tight normal distribution around a single mean. Complicating this is that the leading indicators of major opportunities or risks are often buried in a few weak signals in a noisy environment; the longer a company waits to be assured the signals are real, the greater the chance that others will have moved first. However, as scenarios can exhibit, the value of prediction may be in its enabling a company to assess how well its existing strategy can accommodate potential futures, and thus gauge how much it has to change.[155]

- Forecasting is not just about the external environment of the firm. It also entails thinking about the firm itself as an organization and its ability to adjust to the environment. The firm has a dynamic quality about it. Its structures, practices, people, investment base, and past experiences shape how the external world is viewed and what the options may be proposed to respond. Because change does not occur instantaneously, these factors also affect how fast the firm will respond. One has to understand what levers of change will work for a specific firm facing a specific challenge, and how long it may take to alter how the firm operates.

[155] Strategy may be more about looking inside and then out, rather than looking at the environment and then determining what needs to be done within the firm. Strategy follows structure and not the reverse. To some extent, anatomy is destiny.

- Strategy is about competition, and competition has to be thought about in both the specific and the general. Thinking specifically means looking at existing and potential competitors, understanding their behaviors and plans, devising how to offset them, and projecting their reactions to a company's strategy. Thinking generally means looking at how competition as a state of behavior can be used to succeed (e.g., by affecting regulatory environments, altering the supplier base, or changing the underlying technologies and practices that govern entire industries).

- Strategy is about building distinctive competencies which provide a company the basis for long term competitive advantage in market places. How distinctive those competencies can be depends on being able to weigh the opportunities in the environment, the behaviors of competitors (and possible competitors), the actions of suppliers and others, and the skills and resources of the firm itself. That requires understanding what the company itself does that is the source of its success, how it does those things, and its dependencies on other organizations to succeed (e.g., suppliers, regulators, political organizations, etc.) Large firms in particular can inadvertently not recognize the core sources of their own success. For example, they can applaud their growth in the market, but misunderstand the basic reasons for the success. Also, power can shift between the firm and those on whom it depends (e.g., the effects of deregulation or greater regulation, or a decline in available suppliers).

- Strategy requires action. While disagreement exists about the level of detail, the requirement for action is accepted and poses a number of challenges. One needs to understand the steps that must be taken at the broadest level to move the firm in a strategic direction (e.g., major investments, major relationships to be developed, and key directions in technologies). One needs also to understand what steps need to be taken within the firm (e.g., changes in organizational structure, incentives, operational practices, and people skills). Then the challenge is to determine what level of detail to prescribe in both as part of the strategy. Complicating this in very competitive markets is that success or failure can depend on seemingly minor details in a company's activities (e.g., the failure of a part or a poorly conceived initiative can destroy a business, or create a weakness that competitors can use to destroy the business).

- Strategy has a contingent quality, i.e., a firm's strategy has to be uniquely tailored to its external and internal situation. While one can identify broad principles or different viewpoints of how to succeed (e.g., price vs other sources of differentiation, or radical vs gradual change), the exact mix depends on what a company is encountering and the underlying dynamics of the firm itself. A firm may chose a portfolio, core competence, or network oriented strategy, but what specific portfolios, competencies or networks meet its needs? A firm may focus on time based strategies, but exactly where in the temporal chain (e.g., new product introduction rates, inventory replenishment speed, delivery times, new technology advances, etc.)? There are a wide variety of valuable insights into how success occurs; the challenge is formulating those insights into a package applicable to a specific company.

- Research into strategy over the past fifty years has produced a wealth of ideas. It is easy to identify as many as a dozen different categories of strategic concepts, such as product-market, network, value chain or time based approaches. Each has its particular valuable attributes. But the extensive number of concepts alone challenges those involved in formulating strategy. Few have time to fully grasp them all. Firms have a tendency to adopt ones that are currently popular and publicized; there can actually be a commoditization of strategy, as so many firms adopt one method that the method itself no longer provides a discriminating quality (e.g., the widespread use of portfolio approaches). And, once a firm has invested in an approach it can find it very difficult to move away from it, even as its environment demands a different approach.

- Strategy is ultimately about “fit”, the close correlation between what is occurring external to the firm, the firm’s responses to that, and the internal activities of the firm to implement its responses. Strategy embraces the entire firm and its activities with the environment. Even seemingly “tactical” level activities may be hard to separate because they can be the “detail” that undermines the strategy. In “fit” what strategy entails is a perspective of a company as a “whole”. That in turn creates an intellectual challenge to grasp and weigh the factors that have been identified in the previous bullets, and be able to understand both the obvious and the second, third and lower order relationships that exist among them. Strategy as a business discipline originally emerged from the need to integrate the internal activities of a company to match how the company acted towards its markets. It expanded to include how the company could use that internal coordination to shape the external environment to its advantage. That requires a facile level of thought that essentially juggles innumerable potential combinations of factors.

A number of other influences complicate the intellectual demands of strategy:

- Strategy formulation is challenged by an inherent tension between process and creativity. Except for small firms and new firms, virtually all strategy is the result of process. Very few strategies emerge from the actions of a single person who then drives the firm to perform. At best a strategy appears from the continuing exchanges among a handful of individuals who can embrace the intellectual demands identified above and move from formulation to implementation. At its worst strategy can be dominated by a rigorous, schedule paced, data heavy, multi-organizational, and highly documented process. The process itself is seen as a validation of the strategy (regardless of its content); ideas are submerged by the demands for coordinated views; and, judgment or intuition is displaced by requirements for substantiation through data. Overall, any process --- whether ad hoc, excessively disciplined, or somewhere in between --- shapes the outcome.

- Of particular importance to strategy --- in established firms in particular --- is the role of organizational and people behavior. Structure should follow strategy, but often the reverse is true. The hierarchy of a firm, its formal structure, its formal practices --- and the informal aspects of all three --- shape how the firm observes the external environment, assesses its future and generates ideas about how to act. Those factors can easily pace how fast (if at all) the firm adjusts to changes taking place around it. Studies indicate that firms with long term success records are not there so much because of great strategy but because of great organizational structures and practices. Yet the problem of this branch of thinking is that --- despite a great deal of research into its importance --- organizational diagnosis is seen as a general management function. It lacks the fundamental institutional force of the traditional functions of a firm (e.g., marketing, finance, technology, manufacturing, human relations or individual businesses). Indeed, just in formulating strategy, it is evident that sub-organizations and people within companies adopt specific approaches (e.g., using portfolios); a challenge is how to alter their preference (e.g., to core competencies) in the face of established practices, data bases, and even careers built around the existing approach.

- Strategy is hard because it can become increasingly transitory. As markets and industries have become more competitive, a firm's strategy can lack the endurance to work for more than a few years. Firms identified in the 1980s as leaders had fallen off that position by the 1990s; deregulation or new regulations can obviate a strategy; technologies can change how an industry operates; and, surprising competitors can appear with new ways to attract buyers. Some industries can be stable for decades and permit firms to sustain a strategy. But many industries have seen a change of pace that has introduced greater varieties in strategies for competing, and that in turn has created an increased pace of change in strategy generation itself. Companies can rest on their existing strategies only to the extent that those strategies can keep pace with the environment of the firm.

- Strategy can be generated in a variety of ways. While initial thinking saw it as analysis and decision coming from top management and being emplaced at a single point in time, research has shown that its origins can be far more diverse. Comprehensive analysis may be less important than a synthesis of analysis, judgment and intuition derived from experience. It can be established by the actions of many people and subunits of a company, which then accrete to form the strategy of the firm. It can take years to occur, as its broader concepts are

> modified (or even developed) as the company interacts with the external environment, or as the actions to implement those concepts are established. Leaders of companies can have little in talent to develop strategy, but can be the source of a central purpose about which others develop the concepts and actions that create a successful strategy. Brilliance may not be required; tenacity, learning and implementation can be the drivers. Any firm of appreciable size has a strategy; it is implicit in its structure and activities. That strategy may come about in any number of different ways.

Business strategy, therefore, is complex as an intellectual endeavor and as an organizational effort. Except in new companies, strategy is never generated on a level playing field. Absence of information and problems of prediction provide incomplete insights into the world. A variety of external forces work to undermine or support the strategy. And, the internal organization has its own preferences ---- not only for strategies themselves but even for how to formulate strategies. Depending on the extent of change required ---- and the urgency needed ---- those involved in strategy have to both make bets on the external future and navigate through the existing organization to get there.

As a speculation, the frequency with which firms fall from leading positions in industries may indicate that most strategies fail (either quickly or in a matter of a decade). That in turn suggests that a company's basic goal in formulating strategy might not be "success" in some narrow definition of term but (a) establishing strategies that have enough breadth to adjust to the industrial environments or (b) avoiding major errors (i.e., strategy may be more about avoiding bad choices than making good ones). Concepts like core capabilities, emergent strategies, carefully designed organizations, and adaptation may be the hallmarks of long term success. The key may be to avoid poor choices at the outset, because adjusting from a bad choice is difficult and resources, time and competitive advantages will have been lost in the interim. Interestingly this may be easier than selecting the perfect strategy, because many failures rest in poor understanding of the firm itself, in the resource demands of a new strategy, or in the underlying character of markets being considered. These can all yield to analysis and judgment.

Concepts of strategy seem to have become more diverse and more intricate in the past 20-30 years. The period between the early 1970s and the mid-1990s seems to have been particularly rich, giving rise to portfolio concepts, core competencies, value chains, networks, and a host of other ideas. It may be this was the "growth" period in American strategic thinking. Research was stimulated by the first time demands for professors of strategy for the new field, the expansion of world markets, the growing market in strategy consulting, and company demands for strategy. Some researchers believe the rate of innovative ideas has tapered off. Perhaps by the turn of the century, "dominant designs" of strategic thinking may have taken hold. Moreover, just as technologies and product markets are no longer uniquely centered on the U.S., so too may become the conceptual developments in strategy. Perhaps another growth period will occur as the academics, consultants, and companies of foreign states begin to develop strategic thought.

This study focused largely on why strategy was difficult from the perspective of business strategy, not public sector strategy. Partly that was because --- within the budget and terms of reference --- the available research material was greater. Partly it was because research in the field of business strategy in the past fifty years has been more comprehensive and methodologically disciplined. Partly, it was because readers of this report are more likely to be familiar with defense strategy than with business strategy, and can draw their own conclusions on the validity of comparisons between the two.

Strategy in the public sector has many similarities to that in the commercial sector. It deals with forecasting, focusing on opponents, understanding the organization, detecting changes in the environment and framing responses to them, etc. However, strategy in government is very different when these broad areas are examined in some detail.

- Strategy in government is fragmented. At the level of national security the statements of defense strategy are often decoupled from actions that would be required by agencies or that would change overall DoD practices. At the level of the military, strategy is very complete for wartime, but more abstract in addressing peacetime. In contrast to business strategy, therefore, strategy in government does not focus on the entire organization and/or focuses only on certain situations (i.e., combat).

- The view of competition is narrow. It appears strongly in defense and military strategy. It also may appear in economic and trade policy, but this was not examined. However, unlike the commercial sector the perspective in national security is largely defensive. The focus is on the "threat" (itself a defensive term) and how to counter that "threat". Strategy tends to be more offensive (what the U.S. will do to others) only in a warfighting perspective. There are certainly exceptions, cases where the U.S. has in peacetime attempted to shape the behaviors and capabilities of opponents and friends. These seem to be isolated incidents. The notion in the private sector of a relentless effort to disadvantage opponents does not seem to be present. Certainly the body of literature on national security strategy does not include anywhere near the numbers of articles and books that are found in the business literature on how to compete and beat competitors.

- Government strategy is far more dominated by rigorous adherence to formal processes. Processes are not seen as something to be tailored to the needs of formulating a particular strategy, except perhaps at the White House/NSC level. Processes are seen as essential activities with specific rules or practices that must be employed to produce a strategy. Those organizational "rules" or behaviors govern who participates, what can be addressed, who has to agree, what documents are to be written and when results are to appear. Rules can even specify what constitutes “strategy” (i.e., how it is defined) and thus exclude lines of thinking as “not being strategic” based on some general definition, not on its pertinence. In government, process can be a higher order function that controls strategy; strategy formulation does not control the process.

- Organizational behavior and politics can often trump strategy. Organizations are as likely to be seen as obstacles or constraints in formulating strategy, as they are likely to be seen as institutions to be acted upon as part of strategy. Partly this reflects the huge size, diversity and even geographic spread of a cabinet department or a military. Even people who spend entire careers in them can be only locally smart. The politics of government ---- meaning electoral politics, ideological politics, and organizational politics --- are also more likely to be treated as constraint functions in strategy formulation. Consequently, strategies ---- to the extent they are stated ---- tend to reflect what is already being done (in order to satisfy organizations, constituencies, etc.). Major change comes slowly because these internal forces must be mollified. Such approaches can work as long as resources are sufficient to support multiple strategies, and the speed of emerging threats or opportunities do not exceed response mechanisms.

- Except in war fighting, strategy tends to be weak in specifying implementations. While action is a centerpiece of business strategy, government statements of strategy often appear as sets of broad goals and outlines of interests. Actions which are addressed appear to be those already ongoing; only occasionally does there seem to be a call for the cessation of an activity. One consequence is a belief that real strategy is seen as how money is spent. In other words, the budget is the real measure of strategy, not the result of strategy

- Major dramatic strategic change in government, therefore, appears to occur only under a few major conditions ---- a change in leadership, a new major threat, a major crisis, a significant failure, or the introduction of a new technology. These overwhelm – sometimes quickly and sometimes over many years --- the organizational, political and process dominance of government activities. These forces are also often the type of stimuli affecting a change in business strategy, but the reactions are very different in both speed and content.

- “Fit” is an elusive aspect of strategy in government. In business strategy it means a coherence between the external environment and the internal activities of a company. In government, however, because of factors above, strategies may be formed that are inconsistent with the external environment or with the internal activities of the government.

To some extent these differences between strategy in government and that in business are quite reasonable. Government is about reflecting the will of the people; politics is about that. Processes should insure that inputs are obtained from the large and hugely complex structure of government; insights should not be lost because an agency was not tapped for input. The failure to be too specific enables organizations to sustain competencies which may become valuable. Organizations in national security --- particularly the military --- pay close attention to potential opponents and may have better insights. They often are already adjusting their local strategies. Unlike the private sector, the government cannot just decide no longer to engage in certain activities. A lethargic rate of strategic change is very important when national security is at stake; the cost of eliminating an existing capability for a new one that fails may be irreparable.

Setting aside the various political, process and organizational issues, a brief survey of the strategy literature in the public sector suggests that the intellectual content of the business strategy is just richer. Business strategy contains more variations in ideas, more variety of frameworks for thought, and more observations underpinned by rigorous research. There are several possible reasons for this.

- Thinking about business strategy is a comparatively recent phenomenon. It begins in the 1960s and accelerates in the next thirty years. It establishes itself in academia as a business discipline separate (but related) to those of marketing, finance, manufacturing, etc. Military strategy, however, has been around for centuries. People seem to believe that Clausewitz and others who have written over past centuries have established the underlying theories of warfare. The problem is tailoring them to particular situations. Defense strategy --- like business strategy --- emerges after World War II. But in academia it seems to have been captured by historians and social scientists. Also, national security (especially war studies) has been even less acceptable among faculties than business education.

- Affecting research on both sides is the availability of data. Companies have provided a rich and large volume pool of successes and failures, on which ideas on strategy could be tested. The volume alone stimulates thought. By contrast the number of “events” in the past half century in defense and military strategy are far fewer. Moreover, they evolve over longer time periods; any analysis is cluttered by debate over whether a success or a failure resulted; and, the causes can be similarly debated. Essentially even with its uncertainties business strategy research has a less ambiguous stream of information on outcomes than does government strategy.

- Finally, in the private sector there has emerged a major demand for ideas and concepts in strategy. In the government, however, it is not clear that there is a similar demand (except in warfare). Leaders are expected to think about strategy,

> and strategies are expected to be prepared. But underlying those outputs is a belief that "strategy" is subservient to the political and organizational behaviors of government. The problem in new ideas about strategy may not be about a lack of supply, but a lack of demand.[156]

One of the most intriguing questions about strategy ---- whether in the private or public sector --- is whether it is an inherent trait of some people or can be learned. Researchers have concluded that some people are inherently better at grasping its multiple intellectual dimensions than others. However, there does not appear to be much research into the questions of how essential is that uniqueness (i.e., could a useful strategy have been developed by lesser people?); or, to what extent others can be brought to that level of capacity (e.g., can people be educated to that level of skill?) Indeed, over the past several decades examinations of how strategy is actually developed have raised the question of whether a unique brilliance is important. It may well be that in the early days of business strategy (1960s-1970s) the newness of the discipline and the absence of volumes of research meant that those who quickly and intuitively grasped its importance and how to use it were those with exceptional mental talents. Now ---- with tools available, volumes of research and years of experience --- lesser individuals can be just as productive. The capability to think strategically, like many other disciplines, may yield to education and experience.

[156] This very interesting idea --- that government leadership has not really demanded much improvement in strategy in comparison to the private sector --- should be credited to Jim Quinlivan from Rand Corporation (email message to the author).

Appendix A

Business Strategy Descriptions

The following are several pages of sample descriptions of business strategy, arranged in rough chronological order to reflect some of the evolution of thought.[157]

(Tilles) "of all the questions a chief executive is required to answer, one predominates: What kind of company do you want yours to be? ….. There is a basic fallacy in confusing a financial plan with thinking about the kind of company you want to be …. to claim value, firms must first create value …"[158]

(Ansoff) "Ansoff .. developed his strategy concepts out of frustration with planning. ….. For Ansoff, strategy provided a 'common thread' for five component choices: (1) product-market scope; (2) growth vector … (3) competitive advantages …. (4) synergy internally generated by a combination of capabilities … (5) the make or buy decision"[159]

(Andrews) "Corporate strategy is the pattern of major objectives, purposes or goals and essential plans for achieving those goals, stated in such a way as to define what business the company is in or is to be in and the kind of company it is or is to be."[160] "Andrews, in his text for Business Policy…. added Selnick's "distinctive competence' …. (the ideas of) opportunities and threats …. (and conducting) internal appraisal of strengths and weaknesses (to lead) to identification of distinctive competencies."[161]
(Christensen, Andrews & Bower) "corporate strategy is the pattern of decisions in a company that (1) shapes and reveals its objectives, purposes and goals, (2) produces the principal policies and plans for achieving these goals, and (3) defines the business the

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[157] These have been included because just reading through them communicates how commonly held is the view of its complexity. The quotes also demonstrate differences in view about what is the relative importance of different sub-elements of a strategy. For example, is focusing on the competition more important than focusing on the internal capabilities of the firm; how should near and far term action being weighted; and, what is relative importance of a unique concept vs prescribing specific actions to implement the strategy?
[158] Montgomery 2008 pg 56, describing the view of the Harvard Business School lecturer Seymour Tilles in a 1963 article.
[159] Rumelt pg 17-18 paraphrasing Ansoff's ideas expressed in his 1965 book Corporate Strategy.
[160] Kiechel pg 118-120 quoting Kenneth Andrews' 1971 book The Concept of Corporate Strategy. The book itself was an attempt to provide a framework for the cases taught at HBS in Business Policy. See also Simons pg 134 for examples of goals as part of strategy.
[161] Rumelt pg 17 describing Kenneth Andrew's contribution. According to Porter this early literature set three key criteria. First, a company should develop and implement an internally consistent set of goals and functional policies that collectively define its position in the market. Second, these should align the firm's internal strengths and weaknesses with the external threats and opportunities. Third, the central concern should be the creating and exploitation of distinctive competencies. (Porter's chapter in Rumelt pg 425-426)

company intends to be in and the kind of economic and human organization it intends to be."[162]

(Porter) "Strategy is about positioning a business in a given industry"[163]

(Stalk) "the essence of strategy is not the structure of a company's position in products and markets, but the dynamics of its behavior. The goal is to identify and develop the hard-to-imitate organizational capabilities that distinguish a company from its competitors. A capability is a set of business processes, strategically understood."[164]

(Mintzberg) "(One view is that) Strategy is a plan … equivalent to a direction …. (However) Strategy is also a pattern, that is, consistency over time…. We can call one intended strategy and the other realized strategy….. Strategy is created at the intersection of an external appraisal of the threats and opportunities facing an organization in its environment, considered in terms of key factors for success, and an internal appraisal of the strengths and weaknesses of the organization itself, distilled into a set of distinctive competences. Outside opportunities are exploited by inside strengths, while threats are avoided and weaknesses circumvented….. Strategies, in other words, do not exist as tangible entities. They are abstract concepts, in the minds of people. And the best of them seem to be gestalt in nature, tightly integrated, whether intended strategies as synthesized patterns of preferences … or realized strategies as .. formed among actions. Thus, serious change in strategy generally means shift in gestalt…Strategy can be rich visions, intricately woven images that can create deep-rooted perspectives." [165]

(Rumelt) "firms have choices to make if they are to survive. Those that are strategic include: …. goals …. products and services to offer …. design and configuration of policies determining how the firm positions itself to compete …. an appropriate level of scope and diversity …. (and) design of organizational structure, administrative systems, and policies used to define and coordinate work. …. These choices … must be integrated. It is the integration (or reinforcing pattern) among these choices that makes the set a strategy."[166]

(Simons) "Like the concept of control the definition of strategy seems straightforward until we attempt to describe it ….. The most familiar usage recognizes strategy as a plan, or a consciously intended course of action …. Strategy can be inferred from consistency in behavior, even if that consistency is not articulated in advance or even intended ….. (some) view strategy as position ..… (as the) differentiation of products, low cost, or specific customer groups …. Strategy as position focuses on the content, or economic

[162] Roche 1979 pg 3, summarizing Christensen, Andrews and Bower.
[163] Prahalad 1994 pg 10, describing Porter's view in his 1980 and 1985 books.
[164] Kiechel pg 228 quoting George Stalk of BCG in the 1990s.
[165] Mintzberg 1994 pg 696-703,921-26, 4368, 6130.
[166] Rumelt 1994 pg 9.

substance of the chosen strategy … Finally…. Strategy can be .. a unique perspective or way of doing things …. a perspective shared by the members of an organization."[167]

(Porter) "Strategy is the creation of a unique valuable position, involving a different set of activities…..The essence of strategic positioning is to choose activities that are different from rivals….. Strategy is about combining activities."[168]

(Bossidy) "Corporate-level strategy is the vehicle for allocating resources among all of business units……. (it) also defines the walls of a company --- the businesses it wants to be in and the general arena of play. ….. When a business unit creates its strategy, it clearly lays out in specific terms the direction of the unit: where it is now, where it will be going in the future, and how it will get there."[169]

(Kim) "When executives develop corporate strategy, they …. set out to carve a distinctive position where they can outperform their rivals by building a competitive advantage …… (They then) align (the company's) value chain accordingly, creating manufacturing, marketing and human resource strategies in the process. On the basis of these strategies, financial targets and budget allocations are set."[170]

[167] Simons 1995 pg 8-9.
[168] Porter 1996 pg 68 and 70.
[169] Bossidy 2002 pg 183-184.
[170] Kim 2009 pg 73.

Appendix B

Military or Grand Strategy Descriptions

These are arranged in rough chronological order to reflect the evolution of thought.

(Clausewitz) "War is not a mere act of policy, but a true political instrument, a continuation of political activity by other means …. War should never be thought of as something autonomous, but always an instrument of policy."[171] "No one starts a war --- or, rather, no one in his senses ought to do so --- without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it." --- "to compel our enemy to do our will" ---- "render the enemy powerless" ---- "overcome the enemy and disarm him" ---- "The first principle is that the ultimate substance of enemy strength must be traced back to the fewest possible sources, and ideally to one alone."…. "combat could take a number of forms, not all of which required physical destruction of the enemy…"[172]

(Liddell Hart) Strategy is "the art of distributing and applying military means to fulfill the ends of policy."[173]

(J.C. Wylie) Strategy is "a plan of action designed in order to achieve some end; a purpose together with a system of measurement for its accomplishment."[174]

(Schelling) "Military strategy can no longer be thought of as …. the science of military victory. It is now equally, if not more, the art of coercion, of intimidation and deterrence. The instruments of war are more punitive than acquisitive. Military strategy… has become the diplomacy of violence."[175]

(Murray) "Policy is a government's position, statement, or plan of action designed to influence and determine future decisions and actions… (it) reflects a government's war aims and embodies its understanding of the war's causes, its conduct, and the circumstances of its conclusion and consequences…… Strategy is a general plan for the creation, deployment (geographic movement), and employment (use) of coalition and national armed forces to achieve war aims by destroying the enemy's will and ability to wage war. In theory, war aims should determine strategy, but often other factors such as geography and distance, coalition relations, and the speed with which decisive armed

[171] Scales pg 23, quoting Clausewitz.
[172] Van Riper pg 3 & 6, quoting Clausewitz.
[173] Van Riper quoting Liddell Hart pg 4.
[174] Van Riper quoting J.C. Wylie pg 4.
[175] Schelling pg 34.

forces can be created shape strategy as well….. Strategic plans attempt to identify .. enemy strengths that (must be) overcome …. "[176]

(U/I American War College) " war is a phenomenon fundamentally concerned with the distribution and redistribution of power. Power can be material or moral and can be defined as a state's *ability* to get another state to behave in a particular fashion, that is, to do what that state otherwise would not have done (or vice-versa). Such a definition treats power as *influence*. If a state exerts its will successfully, and often, then that state is said to be powerful. But power in the sense of influence is difficult to measure. For that reason, power is also considered in terms of *capability*, which is easier to measure than influence." [177]

(OSD/NA) "(The elements of strategy include) …. changes in the nature of the geostrategic environment, the goals of our competitors, and the ways in which wars will be fought …. fundamental aspects of competition …. … the strengths, weaknesses and characteristics of the United States …. (the) nature, size and organization of the U.S. military …. The strengths and characteristics of potential competitors …. The set of essential missions that the U.S. will have to be able to accomplish effectively, no matter which specific competitor …. shaping the U.S. military .. for long term competition …. (by prescribing) a set of actions designed to improve (its) position vis-à-vis (competitors) …. to develop and maintain high levels of military capabilities relative to (U.S.) goals and the goals and means of (those) competitors ….. (that are also) applicable across a range of future environments …. (including actions) to guide the allocation of resources, shape processes and procedures, and organize the DoD …. a plan for not just what will be done but how change will be effected …. (to provide a basis to) view individual programs, decisions and adaptations not as isolated incidents but rather as moves within a much broader context …. ."[178]

(Joint Pub 1-02) "<u>National Security Strategy</u> (also referred to as Grand Strategy and National Strategy) ….. (is the) art and science of developing, applying and coordinating the instruments of national power (diplomatic, economic, military, and informational) to achieve objectives that contribute to national security ------ <u>National Military Strategy</u>….. (is the) art and science of distributing and applying military power to attain national objectives in peace and war. ----- <u>Theater Strategy</u> …. (is the) art and science of developing integrated strategic concepts and courses of action directed toward securing the objectives of national and alliance or coalition security policy and strategy by the use

[176] Murray pg 583.
[177] Lesson plan description CSC8802 pg 1-5.
[178] "Maintaining U.S. Military Superiority" OSD unpublished draft article summarizing views of OSD Newport 1999 study

of force, threatened use of force, or operations not involving the use of force within a theater.[179]

(Army War College) "Strategy is the domain of the senior leader …. the comprehensive direction of power to control situations and areas in order to attain objectives. ….. It is comprehensive, it provides direction, its purpose is control, and it is fundamentally concerned with the application of power. Strategy …. focuses on the nation-state and the use of the elements of power to serve state interests. …… strategy is the employment of the instruments (elements) of power (political/diplomatic, economic, military, and informational) to achieve the political objectives of the state in cooperation or in competition with other actors pursuing their own objectives. …… The underlying assumption of strategy from a national perspective is that states and other competitive entities have interests that they will pursue to the best of their abilities. Interests are desired end states such as survival, economic well-being, and enduring national values. The national elements of power are the resources used to promote or advance national interests. Strategy is the pursuit, protection, or advancement of these interests through the application of the instruments of power. Strategy is fundamentally a choice; it reflects a preference for a future state or condition.[180]

(Army War College) "we define strategy as the relationship among ends, ways, and means. ***Ends*** are the objectives or goals sought. ***Means*** are the resources available to pursue the objectives. And ***Ways*** or methods are how one organizes and applies the resources."[181]

(Colin Gray) Strategy is "the use that is made of force and the threat of force for the ends of policy"[182]

(Gaddis) "Grand strategy is an ecological discipline, in that it requires the ability to see how all of the parts of a problem relate to one another, and therefore to the whole thing. It requires specialization to some extent – the mastery of certain parts – but it also demands generalization, for without that skill there can be no sense of how an entire system works, where it's been, and where it's going."[183]

[179] Joint Pub 1-02 as cited in Yarger as Army War College supported definition.
[180] Yarger describing the view of strategy at the Army War College.
[181] Dorff in "A Primer in Strategy Development", chapter 2 in Cerami.
[182] Van Riper pg 4, quoting Colin Gray.
[183] Gaddis pg 9.

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