Increased Business Complexity and its Effect on Management

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Introduction

Changes in the Business Environment

Two centuries ago United States business operated in a simple environment. The environment changed little until the large owner managed corporations of steel, railroad, finance, and oil created the first complex business entities in the United States in the late 1800's. As US business changed becoming more complex, mirroring the increasing complexity of society, the business environment also changed. The owner manager of a company could no longer sit at the tip of a hierarchy directing the business day to day. Business had become so complex that specialists were required to understand, keep abreast of, and exploit changes in the marketplace due to technology changes, regulatory changes, and customer demographics changes.

Peter Drucker [DRUCK66] calls this new specialist the knowledge worker, a person with the skills and knowledge who works with information just as the skilled craftsman works with physical materials. With this fundamental change in the management of business, the owner manager became an anachronism for a large corporation. The owner manager is the entrepreneur who builds a small company but the jump from small to medium to large requires specialists who provide the efficiencies and knowledge required to operate a large company.

The Combined Skills Team

Buckminster Fuller points out:

We are in an age that assumes the narrowing trends of specialization to be logical, natural and desirable. Consequently, society expects all earnestly responsible communication to be crisply brief. Advancing science has now discovered that all the known cases of biological extinction have been caused by overspecialization, whose concentration of only selected genes sacrifices general adaptability. Thus the specialist’s brief for pinpoint brevity is dubious. In the meantime, humanity has been deprived of comprehensive understanding. Specialization has bred feelings of isolation, futility, and confusion in individuals. It has also resulted in the individual’s leaving responsibility for thinking and social action to others. Specialization breeds biases that ultimately aggregate as international and ideological discord, which, in turn, leads to war. [FULLER]

Due to the deficiencies of the specialist involving knowing more and more about less and less, companies are now emphasizing the development of cross functional or combined skills teams. The hope is that cross functional teams will allow a company to overcome the lamentable lack of multi-disciplinary geniuses and cope well enough with the current business environment.

The combined skills team is a team of knowledge workers which, working together, provide the kind of Renaissance Man required for the modern business. The combined
skills team provides the capability to make decisions in a world in which a particular knowledge area such as regulatory or technology requires years of study and experience in order to build the expert knowledge needed to make good decisions quickly.

Good decisions quickly is the key. Time for research can be traded for expert knowledge but when the time a decision point is reached to when the decision is made and then implemented is measured in days, time for research is an unaffordable luxury.

It is just these catastrophic decisions that enable a company to move profitably through the commercial waters or to impale itself on a decision reef loosing all hands. Whether its the announcement of a new technology by a competitor, a contamination or defect problem in its goods or services, or an unnoticed demographics change that impacts the marketplace, a company can no longer rely on a couple of people at the top of a functional pyramid to make the choices that lead to company prosperity.

The skill set required for a combined skills team will vary depending on the market structure of the company as well as the time horizon and team deliverable expected.

At an executive suite level, the minimum skills required would be a financial component, an operations component, a legal component, and a marketing component. Normally, one would also expect to see a technology component and a human resources component. The emphasis at the executive level is on building a competitive company and the time horizon is measured in years.

At a new product development level in which a team is creating a new product, the skill set requirement of the core team would be primarily an operations component, a technology component, and a marketing/sales component. The time horizon for such a team is measured in months rather than years. The emphasis is a successful product launch in as short a time as possible.

But with the change to teams comes diffused accountability. Instead of a single owner manager who is clearly responsible for the company results there is a team with all of the team dynamics and team decision making behaviors. With the combined skills team also comes the necessity for top management to select people to staff these teams wisely.

It also means that team members must know not only their particular skill area but have a general appreciation for other business skill areas. More importantly, the team members must know and understand team dynamics and decision making. The team members must be able to combine each other’s insights and knowledge into making good decisions.

Changes in Business Expectations of Employees

A Brief History of US Social Changes

Alexis de Tocqueville, a French traveler who visited the United States in 1831, wrote of his impression of the equality which marked life in America. The great majority of Americans were farmers working their own land, primarily to meet their own needs. Most of the rest were self-employed artisans, merchants, traders, and professionals. Employees and industrialists in the North or slaves and planters in the South were relatively few.
By 1900 the number of wage earners, people employed by a business of some kind, had grown from 1.5 million at the time of the Civil War (1860) to 5.5 million. The development of the large steel, railroad, and oil companies financed by the wealthy banking companies and sustained by Congressional actions that supported big business created an industrial economy that grew in complexity.

During this same time, the equality which de Tocqueville remarked upon had changed to very real class divisions. Labor unions, started by desperate men who had had enough of being treated like another shop floor machine, began to gain the necessary power to force changes to their condition. Strikes, often bloody confrontations between angry laborers and company paramilitary groups bolstered by police and state militia, were used by unions to obtain concessions towards a humane working environment [BRECH72].

After World War II, scientific methods were introduced into the business world by people such as Robert McNamara who had used these same methods to manage the war effort. For the next two decades, the US economy was the dominating economic force in the world. Products from the US flowed throughout the world as the US industrial base had seen none of the bombing that had decimated European and Far Eastern industry.

The class differences between white collar (management) and blue collar (shop floor labor) were solidified during the 1950’s and 1960’s. At this time the concept of the white collar Company Man developed. The Company Man was a person who started with a company and expected to retire from the same company some thirty years later. The Company Man’s main focus was the company for which he worked. During the 1950’s and 1960’s the US population became extremely mobile and the Company Man was expected to move to where the company needed him usually with a promotion of some kind. The Company Man was expected to put his non-company life on hold if he expected to climb the ladder of success up the hierarchy of the functional company. In return the company would provide the Company Man with a secure place in society.

Blue collar workers, though susceptible to the inevitable layoff/rehire cycle from business adjustment to economic forces, also had an implied contract with the companies for which they worked. Children of blue collar workers, living in company towns, almost invariably worked with the same company as one or both parents.

During the 1970’s and the 1980’s the implied contract between the company and the employee was demonstrated to be a mirage. Due to imports of goods that competed successfully both in cost and quality as well as an economy damaged by government action (the Vietnam War as well as President Reagan’s economic policies), US business had to push the competitive forces into the company ranks leading to mass layoffs that hit not only the blue collar worker but the white collar worker as well.

The 1990’s have seen the development of contract and temporary workers as larger parts of the workforce. There are now professional contract employees who prefer contract or temporary work despite its insecurity. More and more companies are open about the fact that full time employees must consider that the security enjoyed by the Company Man in the 1950’s and 1960’s no longer exists. People expect to work for several companies during their careers. Job changes and career changes are expected of white collar workers and are encouraged by companies which want multi-disciplinary people who are
experienced with dealing with ambiguity and diversity and who need people who are willing to change and explore.

**The Change in Business Organization**

As the US economy has changed from agricultural to industrial and from industrial to commercial, companies have changed their structure and their way of dealing with their employees. The traditional functional hierarchy, usually bureaucratic in nature, worked well in an economy that allowed the bureaucratic division of work and the work package to be successful. Much as an assembly line at an automobile manufacturing plant creates a finished automobile by different people adding their bit to the product and then sending it on to the next person, a bureaucracy handles information and decisions by partitioning the work and dividing it among a group of people.

The drawback is that the organization functions well so long as the product or service is the same for each customer. Henry Ford was extremely successful in his early years because the early automobile consumer was content with the Model T due to its cheapness and reliability. Ford's emphasis on a functional hierarchy in which he, Henry Ford, made all of the non-routine decisions such as product portfolio was successful during the early years of the US automobile industry because the majority of American consumers of cars demanded little.

But Alfred Sloan and General Motors almost put Ford Motor Co. out of business with the development of the divisional organization and product diversification. Sloan built a company with dispersed decision making capabilities. Each division head was responsible for contributing to the General Motors success but each division head also was given room to make their own decisions about how to accomplish their part of the General Motor's goal [MILES]. General Motors became so successful and so large that there was more than a bit of truth to the saying "If it's good for GM then it's good for the country."

With the increased education level of the average consumer as well as the amount of information available to consumers who want to learn, consumer purchase decisions are being made with more care and analysis. Consumers are also expecting better products where better is defined as more cost effective that is products and services of higher quality and lower cost with greater functionality.

The global economy has caused new competitors to materialize with competitive attributes such as low labor cost that can't be matched head on by US industry. We are seeing a new kind of organization developing, a network organization. Instead of the vertically integrated functional organization such as Ford Motor Co. or the vertically integrated divisional organization such as General Motors or the horizontally integrated divisional organization such as General Electric, the networked organization is actually a group of closely cooperating yet separate businesses which work together.

**The Network Organization**

The network organization is composed of focused entities each of which is part of the value chain for the entire network. Taken to its logical conclusion, the entities would be
separate businesses. For divisionalized companies wanting to change to a network structure, the entities are the divisions or the divisions supported by other businesses within the value chain for the companies’ products and services.

The goal of a network organization is to create an ecological network in which various companies, by focusing on their core technologies and core business processes, are able to combine together into a business gestalt in which the whole is more than the sum of the parts. An example would be a company such as Nike which appears to be a shoe manufacturing company. Underneath, however, Nike is primarily a company that contains a sport shoe R&D segment and a marketing segment. Manufacturing and logistics are performed by other businesses whose focus is in those areas. This arrangement allows Nike to focus on its core competencies and the complementary businesses to concentrate on theirs. This also allows other companies in the network to obtain increased volumes for their own goods and services by using excess capacity for customers outside of the network.

One of the major philosophical points for network organizations is the flattening of the organization with few levels of management between the person directly providing the product and/or services to the consumer and the CEO and executive suite. With this flattening has also come the pushing down of day to day decisions including non-routine decisions. Companies such as Nordstrom’s have created a set of policies, trained those policies into their employees, and then provided those employees the budget and freedom to make decisions within those policies with a latitude that was unknown a decade ago.

But with this increased latitude, employees must be trained and educated to use their freedom responsibly. When Drucker wrote The Effective Executive in 1966 he pointed out that as decision making is pushed down out of the executive suite, frontline employees will become knowledge workers, hence a form of executive. He foresaw that the same skills that an executive needs to be effective would also be required of the frontline knowledge worker: management of time; choosing what to contribute to the organization; knowing where and how to mobilize strength for best effect; setting up the right priorities; and knitting all of them together with effective decision making.

**Well Trained Employees as a Risk Mitigator**

One of the most demanding occupations is soldiering in an armed force engaged in active warfare. Not only are the army’s goals at risk but so are the actual people and resources on which the army depends. While business may use combat metaphors it is not an army taking the same risks as an army takes. But how does an army deal with the harsh realities of the battlefield and what can a business learn about coping with risk from an army.

Perhaps the things that can be learned from a study of warfare is that armies succeed when they are reality based:

- People are well trained for the tasks they must perform
- The army is organized to implement the strategy needed to win rather than the strategy selected by the army’s organization
- The army command is flexible and distributed allowing opportunities to be exploited and setbacks to be contained
• The army commanders at the various levels (company, brigade, division) are selected based on merit and ability to perform. Poor performing officers are removed.
• The army has a simple, easily explained doctrine which is based in the reality of warfare and is implementable by army personnel with the resources at their disposal.

Nonaka and Takeuchi [NONAK] in their book The Knowledge Creating Company agree with Miles and Snow [MILES] as well as Drucker [DRUCK85] that in order for a company to be a truly world class competitor, it can no longer afford the luxury of wasting people. All three of these books have a similar picture of companies using well educated employees to deliver innovative business practices resulting in superior goods and services.

Both [NONAK] as well as [LYNCH] see the development of the world class company involving the pushing down of the responsibility for day to day operating decisions. This doesn’t mean that upper management isn’t involved in the company’s operations. It means that upper management sets a tone and a policy which flows through the company as a guide for day to day operations. Upper management must monitor day to day operations to determine the changes needed within the company due to changes in the company’s operating environment but upper management should not interfere in those day to day operations without good reason.

[LYNCH] provides an overview of the time horizon at various levels of responsibility which is echoed by [NONAK] in their description of the role of middle management in creating product concepts. The why’s of executive management meets the hows of the frontline employee at the middle management level. It is through the instantiation of the vision of executive managers using the day to day realities of the business that innovative products are created and marketed. Middle managers, by creating combined skills teams with the necessary resources to instantiate the vision of executive management, provide the company with the changes to products, services, and processes that allow a company to be competitive.

**Summary**

The science fiction author David Drake wrote in a preface to one of his novels that the one thing that he learned while fighting in Vietnam is that when a government gives a person a gun, that person becomes a policy maker. The same is true of any employee of any company. When a person is given a machine tool, a point of sale terminal, or a computer that person becomes a policy maker for the company. Whether the person will make policy congruent with the company policy or not depends on external inducements for performance as well as internal motivations and values.

A company must always be aware of the external reality of the marketplace and economy as well as the internal reality of business processes. In a time of rapid change, a company that doesn’t monitor both itself as well as its markets, faces extinction.

The combined skills team provides the means by which a company can change to meet market and operating environment changes. The combined skills team, by bringing together the skills and knowledge from various operating areas, allows the innovation of new products and services by exploiting the experience of the people with diverse skills.
Bibliography

[BRECH72] Brecher, Jeremy *Strike!* Copyright 1972 by Jeremy Brecher published by Fawcett Premier


[FULLER] Fuller, Buckminster; *Synergetics*; as quoted in [LYNCH]


