

Bureaucracy and Innovation: How Hierarchical Firm Structures Stifle Innovation and Spontaneous Processes

William L. Krut

Economics 420

8/28/2012

Introduction

Both public and private firms utilize hierarchies to direct their resource allocation and product development. Governments of all political formats from democracy to socialism, aristocracy to totalitarianism have utilized top-down structures of authority to keep the workers in line and on task. Many private sector firms have done similar things assuming that the more a lower employee is directed by his supervisor, the more productive his output will be. This growth can be either an increased output or newly created value. Newly created value manifested in consumer goods are called innovations. Hierarchical firm structures hamper the innovation and success of firms; spontaneous structures have a better ability to meet the needs of the firm and spur innovation.

Conflicting perspectives have been provided on this subject of power. Thomas Hobbes, author of *The Leviathan*; believed that “the life of man solitary, poor, nasty, brutish, and short... is a condition of war of everyone against everyone”¹ and that men could not cooperate or co-create spontaneous structures. Left to our own devices; we are pillaging savages. “During the time men live without a common power to keep them all in awe, they are in that conditions called war; and such a war, as if of every man, against every man.”² His influences in his conclusion are mostly neo- Aristotelian, “in his first book of Politiques affirms... that some men by nature are made worthy to command, others only to serve.”³ This reflects the basic dichotomy of viewpoints of man as relational beings. There are those who view human beings as extorters

^{1,2} Hobbes, Thomas. *Leviathan*. Forgotten Books. 2008.

³Hobbes, Thomas. *Philosophical Rudiments Concerning Government and Society*, 1651 [Rudiments], iii. 13. 46.

of wealth and those who view human beings as creators of wealth. The apprehension to trust mankind's ability to cooperate within society and create structures of production which benefit the welfare in general has greatly inhibited the entrepreneurial ability of individuals in both public and private firm structures. Companies should minimize hierarchical red tape and bureaucratic inhibitions so that individuals may utilize their autonomy to innovate and flourish.

Bureaucracy

Although existing in both the public and private sector, public sector bureaucracy (government programs) has been notorious for its inefficiencies due to issues in pricing, budgets, employment, and incentives. Whenever people think of government bureaucracy, vivid memories instantly come to mind of long lines at the post office, public works firms, and time required to pass legislation. Issues with governments are not due to circumstantial inconveniences or lack of funding, but inherent problems within the firm structure; common problems that can be found in most, if not all types of government work.

Prices are a key mechanism of the unhampered market. Prices provide information on the scarcity of resources in our society and allow us to efficiently allocate these scarce resources. This information is promoted with the absence of bureaucracy. For instance, if the current price of oil is \$95 dollars and expert traders who study oil believe that there will be a shortage in a month, they will bid up the price of oil to \$105. The analysts will purchase futures on oil in expectation of the higher price. Thus people will abstain from using oil now, so that they can sell it for a higher price in the future and the current amount of oil used would decrease (due to higher prices) since the market anticipated the higher prices and saved oil to be sold a month later during the shortage. Oil prices also help communicate how available oil is. If the price of oil is

high, due to a shortage or massive demand; the price increases. This decreases the number of customers willing to purchase oil and helps us conserve our resources. As the price in oil decreases, more people can use oil and more of it. Without prices, people would not know when they are using too much oil. And since it would not cost anything, most people would try to hoard the oil before the next guy does. Thus without prices, huge amounts of resources would be wasted and misallocated!

Government is not able to produce prices. With no markets, individuals cannot communicate their need to own specific resources and communicate the scarcity or abundance of the resources that they own. This issue is especially evident with socialism and other centralized forms of government. Since one entity owns the means of production and monopolizes its use; theoretically, two individuals would not be able to trade goods. Without a real medium of exchange, how could people express how much of a good or service they need? There is a serious difference between what people may actually need and what they could possibly hoard. Within bureaucracy, individuals pursue their own self-interest and satisfy their preferences by hoarding. One could conceive of a society in which the centralized firm would provide only the “bare necessities”. This only shuffles the problems around. If people are only being provided with bare necessities, the government would still be unable to determine which pieces of land, whose labor, and what capital resources would be most efficient and effective at providing the bare necessities for the populace under the public firm. Socialism’s bureaucracy hampers individual human action, and disrupts man’s natural inclination to innovate methods of dealing with the scarcity of resources.

A third issue with bureaucratic firm structures is the use of budgets. Budgets constrain spontaneous firm structures because superiors within the hierarchy will supply lower employees

with a predetermined amount of money to use for the job. The employer's budget is based on his judgment of what an appropriate amount will be for the employee to utilize. With no mechanism of profit or loss, the employer obtains little feedback on the accuracy of his foresight. This is because the ability of the employee to succeed in performing the job is not constrained by his total costs and he cannot realize a profit. When the employee is supplied with a budget, it is in his own interest to use all of it. Many bureaucratic firms will drain budgets if they are not completely depleted, in an attempt to be efficient. So the employee spends his entire set budget, regardless of his performance or the actual cost of his job. This is so that he is not constrained by a budget reduction in the future, a future that may require a greater budget. Thus, employees will waste resources by purchasing excessive capital to prepare for harder times or for purposes of luxury. Luxury goods (like a more expensive than necessary hammer) are affordable because the employee incurs no extra cost. It is in his interest to minimize the pain of his job and therefore he will not purchase the capital that will have the lowest costs (to maximize his profit). He will purchase the capital that will maximize his utility of the task at hand. Thus the employee cannot maximize profit, due to an absence of entrepreneurial foresight and new incentives that hamper his ability to minimize costs and create wealth.

The issue of budgets is not a problem only in markets for capital and land resources, but for labor as well. Employers, who are provided with a budget from their superiors, have an incentive to use their whole budget and improper incentives for hiring profit maximizing employees. Bureaucrats, paid by their superiors, have incentives placed on them to motivate them to work to keep from being fired. But with no sources of profit calculation, government firms can not accurately determine the performance of their employees. How would a public works facility know how well they are satisfying the citizens, if the citizens cannot use money to

express their demand? Citizens can vote on politicians to push specifically for public works to do a better job, but without money it costs the citizens nothing to make these demands.

Therefore government employees, like all other people, do what satisfies their preferences the most. And in the government firm, these jobs can be utilized as a way to minimize work in achieving their particular end. Employment with the government is a means to an end of receiving a wage; but this has very little connection with the performance of the employee. Unfortunately, this means that government workers are incentivized to minimize their productivity (the means) in achieving the same ends that everyone else does, such as: leisure time, pleasure, et cetera.

Spontaneous Order

Friedrich Hayek's theory of spontaneous order represents the other end of the spectrum of hierarchy and autonomy. Spontaneous order is the phenomena of social structures created by human action and not human design. Hayek explains that,

“A spontaneous order is a system which has developed not through the central direction or patronage of one or a few individuals but through the unintended consequences of the decisions of myriad individuals each pursuing their own interests through voluntary exchange, cooperation, and trial and error. This process of spontaneous evolution is not restricted to explaining the growth of the economic order but can also account for the development of language, money, culture, law, social conventions and even morals and ethics. Although the spontaneous order develops through individuals pursuing their own interest, the

individuals still behave by following commonly held rules rather than by acting in a random fashion, and these rules are themselves the product of evolution.”⁴

By each individual mechanism self- correcting through trial and error; spontaneous structures can form the most conducive result to the needs of the group. We see spontaneous phenomena in markets, language, media, culture, and biology. These orders can be self-constructing because they are based on established laws which apply a selective process against changing features of the structure. Spontaneous orders cannot form unless new information is constantly introduced to be added or negated. This action requires the use of a set of laws or an agent to do so. For instance, in an unhampered market economy, entrepreneurs introduce new goods of services in a vast array of allocated formats and with innovative revisions to previous designs. These products can only be sustained as part of the market structure if they are valued and used by the consumer. The consumer is the agent that selects for or against new information (goods and services) within the market. This agent is the invisible hand that Adam Smith used in *The Wealth of Nations*,

“he intends only his own gain... led by an invisible hand to promote an end which was no part of his intention... By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it.”⁵

⁴Bowman, Jack. *The Illusion of Choice*. <<http://dailyreckoning.com/the-illusion-of-choice/>>. 2012.

⁵Adams, John. *Wealth of Nations*. Digireads.com Publishing 2008. 264.

By pursuing his own end, each agent is capable of morphing the shape of the market structure in a way that benefits the other agents selecting for or against features of the order. The truck driver who ships food into a metropolis to be paid by the grocery store owner is doing so to receive income for his own ends. His primary goal is not to help provide food to a group of people far from farmland, in a densely populated area. No one plans for how these people will receive their food. But through an extended and spontaneous division of labor, consumers are able to get what they need and reject what they do not. Thus market selection helps facilitate the goods being provided to reach and more accurately align with the needs of the consumers in the urban environment.

Constructed Order within the Firm

Bureaucracy within a business firm hampers spontaneous order, because its order is rigid. Constructed orders impinge the development of new features and react to the external environment. The mechanism which should be used to promote an innovative firm structure is profit maximization. This mechanism helps business managers to assess the employees, capital, and land that would be best used for their business. It also helps them with product design and serving their customers more efficiently and effectively than they otherwise could. Bureaucratic firm structures have added features which inhibit the accuracy of the agent to provide an optimal outcome. Since the firm is not focused on maximizing profit, it must utilize other methods to direct its production. Many firms will utilize layers of red tape and other inflexible measures that may be very applicable when they are originally designed, but fail to respond quickly to changing conditions and to the new information employees acquire and utilize in their work. Ludwig von Mises described the

“characteristic mark of bureaucratic management is that it lacks the guidance provided by considerations of profit and loss in judging the success of its operations in relation to the expenses incurred and is consequently obliged, in the effort to compensate for this deficiency, to resort to the entirely inadequate expedient of making its conduct of affairs and the hiring of its personnel subject to a set of formal prescriptions. All the evils that are commonly imputed to bureaucratic management — its inflexibility, its lack of resourcefulness, and its helplessness in the face of problems that are easily solved in profit-seeking enterprise — are the result of this one fundamental deficiency.”⁶

These issues that Mises describes are familiar to all of us. They are not problems relating to a specific firm, but are the natural outcome of misdirected incentives for the employee of a bureaucratic firm structure.

Those who favor public programs and hierarchical organizations would protest, arguing that the end objective of some organizations cannot be directed by profit and loss. They might argue that it would be for the greater good. The issue with this argument is that if a great number of people would not be willing to pay for those services on their own, perhaps it is because they do not want them. Entrepreneurs have mechanisms to get around other “issues” such as positive externalities (advertising) and land hold-outs (contingent contracts). In fact, without a strict objective of profit and loss, it is impossible to determine if a firm is at the very least wasting resources and at most a burden upon society.

^{6,7,8}Mises, Ludwig von. *Liberalism*. Mises Institute. 2002. 101.

It is obvious that as a company increases its ability to satisfy the preferences of its customers, it will have an increased capacity for growth. But even this does not necessitate that the firm will become inefficient or bureaucratic. Private firms are quite capable of reaching large sizes without forfeiting their free market efficiency and innovation. “Monetary calculation, bookkeeping, and statistics on sales and operations”⁷ allowed for all businesses, regardless of size, to analyze the results of each employee/ department, “to form a judgment on the extent to which the head of each department has contributed to the total success of the enterprise.”⁸ So, as a firm reinvests the returns and profit it makes into its structure, it will grow in size but not necessarily develop stifling bureaucracy in the pricing, budgets, employment, and incentives of the company.

Company Politics and Misaligned Incentives

There are still many factors in the market that can freeze up the innovation of a company. Company politics and corporate status can both lead to bureaucratic issues within the firm. Other factors can change as the firm grows, appearing to be bureaucracy but are actually key changes utilized to maintain the health of the company. Politics can have drastic negative effects on the success of the firm. Corporate politics occur when the primary focus of the company (mutually beneficial transactions of labor and wealth creation between employee and employer) is subjugated to the use of other employees to gain power and influence for end goals which do not align with the productivity of the firm. Many law and investment firms are structured based on seniority and promotional hierarchy. Employees may start out at the firm as a summer intern and then be hired after graduating to become an associate. With hard work and results to show, they may be promoted by their superiors to junior partner. The dream job is to become senior partner. At this job title, the lawyer/ investor is at the top of the hierarchy and receives the most pay.

Within this firm organization, employees are incentivized by their employer to focus on climbing up the corporate ladder instead of focusing on wealth creation. This now makes the job description more of a means instead of an end within itself. Employees may find a higher level of profitability in being well-liked by the senior partner and display their work as being best, instead of focusing on the value creation itself. In some private equity firms, analysts will waste hours during the day, so that they can work at night and look like they are putting in more time than everyone else. This leads to a waste in resources used for employees who put in 80 hour work weeks, who could have had a similar level of productivity in 60 hours. Profits align more accurately with the interest of the firm when hierarchy is not a factor in regards to pay. Employees can focus on creating valued products and services; doing what is best for the company. But when the focus is realigned to promotions, work effort is realigned to being promoted and value creation can be distilled to a means of that end.

This error in firm structure is further promoted with the size of the firm. As the proportion of people an employee has a personal relationship with decreases, it becomes more and more cost effective for him to utilize bribes and other means of influence to gain political power within the company. Another instance in which bribes can be a cost- effective method is when government red tape hamper's a businesses' ability to grow and profit. Recently,

“Wal-Mart had found credible evidence that its Mexican subsidiary — the retailer’s biggest foreign operation, which opened 431 stores last year — had paid bribes and that an internal inquiry into the matter had been suppressed at corporate headquarters in Arkansas.”⁹

Wal-Mart found it necessary to bribe Mexican politicians because the red tape the government had in place was inhibiting their growth and causing them to find the most cost effective way to set up new stores. As bureaucracy and red tape increased, certain methods became viable to further the company's interests. This same principle can be found in a private firm's red tape as well. As employees are inhibited from pursuing profits due to unnecessary protocols, unorthodox methods will become more and more effective to produce the results needed by the employee to accomplish his/ her goals.

Size ≠ Bureaucracy

As stated before, large firms do not have to be bureaucratic as long as they utilize economic calculation. Many large companies have formulated ways to overcome their competition and maximize their productivity while maintaining a large firm structure. John D. Rockefeller utilized vertical integration to surpass his subsidized Russian competitors with Standard Oil. The business magnate,

“was constantly looking for ways to save. For example, he built his refineries well and bought no insurance. He also employed his own plumber and almost halved the cost on labor, pipes and plumbing materials. Coopers charged \$2.50 per barrel; Rockefeller cut this to \$.96 when he bought his own tracts of white oak Cleveland.”¹⁰

⁹Clifford, Stephanie. Greenhouse, Steven. Wal-Mart's U.S. Expansion Plans Complicated by Bribery Scandal <<http://www.nytimes.com/2012/04/30/business/wal-mart-bribery-scandal-complicates-us-expansion-plans.html?pagewanted=all&r=2&>>. 2012.

^{10,11}Folsom, Robert. Myth of the Robber Barons. Young America's Foundation. 1991. 86. 83.

John D. Rockefeller was very meticulous at minimizing costs and would invest into quality equipment to outdo his competitors. He organized his company not through bureaucratic hierarchy and stifling protocols, but with a vision. Rockefeller inspired his men with the vast possibilities of the industry they were helping to create. They were motivated by a mission to refine oil “for the poor man and he must have it cheap and good.”¹¹ For Rockefeller, a large firm structure was a means to attaining the end of cutting costs and reducing prices.

Andrew Carnegie had shifted his strategy for realizing profit as his company grew. Carnegie realized that small companies and start-ups will often take large risks and produce innovative, foreign products to make way in the economy and profit. Large companies like Carnegie Steel Company initiated their market niche with the Bessemer refining process, but once the company had grown to a respectable size; Carnegie realized that profits for his company would be found in small, minute changes for his mass-produced products. By tweaking his company continuously and selling huge amounts of steel with a low rate of return, Carnegie realized a huge profit and gained an opportunity without incurring the risk that other ventures with a higher rate of return may have had. And to keep up with the changing economy, large companies like Carnegie Steel can utilize the acquisition of small, ground-breaking firms. Acquisitions allow the high-end risk of new goods to be localized to smaller start-ups and minimize the risk taken by large, well-established companies.

All the employees who worked for Andrew Carnegie, were in one sense “completely autonomous.” They could quit their job whenever they please, but many employees choose to work for a wage instead of profits. Working with the entrepreneur provides many laborers with

an opportunity to abstain from production decision-based uncertainty and still make a living. In a world without a division of labor, all laborers would be required to seek profits and anticipate future conditions of scarcity. With this said, a flat-lined company is not the best firm structure for all firms. It is the duty of the manager and ultimately the capitalist to discern to what degree his employees would be suited to independently creating value. Some individuals lack foresight and self-direction or are very risk adverse. In these cases, it is not the bureaucracy that would solve the problem, but a division of labor between foresight and physical production. Thus we will see a spectrum of firm structures between those utilizing assembly lines and directed labor to the other end of completely flat-lined companies.

Kaizen

The Japanese business culture has adopted a similar technique which utilizes spontaneous order to develop larger companies in an efficient, non-bureaucratic manner. Toyota has been one of the poster boys for promoting “Kaizen”. This Japanese term is defined as “change for better... continuous improvements”¹². Kaizen does not increase the productivity of the firm by adding workers, hours, machines, or increasing work ethic; which would raise prices or increase output (neither guarantee more sales or higher profits). The only sustainable method is to focus on cost reduction.¹³

The other factors increase costs. Kaizen focuses on reducing waste and making work easier. This increases productivity without incurring extra costs. This technique keeps two things in mind: how can this be more efficient? How does this benefit the customer?

^{12,13,14} Smalley, Art. Toyota by Toyota. Taylor and Francis Group. 2012. 93, 99, 95.

It helps managers allocate labor resources because

“most people feel they are very busy at work and sometimes overwhelmed during peak working hours or rush periods. The reality is that most of what people consider “work” is not value added from the customer point of view.”¹⁴

Taiichi Ohno coined his three criteria of muda (waste), mura (uneven workloads), and muri (unreasonable burdens on people) as perspectives to constantly inquire the structure of the firm and experiment with ways to improve it. Employees will constantly implement this trial and error process to find better results. Little by little the structure of a successful firm spontaneously emerges due to inquiry, innovation, and implementation. Companies that subscribe to the philosophy of kaizen must minimize bureaucracy for their employees. They must be able to break the status quo and slowly add beneficial “mutations” to the organism. Failure is necessary for any true form of success. One reason this philosophy developed in Japan is because their business leaders have a very long time horizon. They plan their companies out into decades and some have even made 100 year plans! The patience that this process requires allows for the company to develop and naturally react to a changing economy with a level of specificity and precision not found in other top-down business models.

Just as Carnegie Steel Company and Standard Oil did; kaizen companies (ex. Toyota) can utilize economic calculation and spontaneous, self-directing business models to react to market conditions and maximize profitability even at a large firm size. Employees are not regimented into specific tasks set by the managers. They are given a broad range of motion and properly formulated incentives to maximize profit and minimize costs.

The Mind of the Autonomous Employee

Why do employees work better when they are given control over their role in the production process? Just as establishing property rights in societies helps promote prosperity and conservation of resources, firms that allow their employees to be self-directed and entrepreneurial can realize many benefits as well. Employers can maximize the value creation of their employees by minimizing their constraints. There are many psychological factors which explain this, creativity being the most important of them all.

Creativity is the ability to formulate unseen connections between ideas for practical applications. Innovation (creating new value) requires human action to apply the results of creativity in forming new products and services for the customer. These goods and services provide for needs and desires which human beings have always had; but innovation allows the firm to provide what people value more efficiently or effectively than its competitors. Because creativity is based on the formation of unseen connections, it cannot be calculated or predicted. But the firm is able to provide an environment for its employees which can spur growth and the development of creativity for added value. By minimizing bureaucracy and firm hierarchy/politics, employers will be able to provide a fertile environment for innovation and spontaneous structures, benefiting the firm.

To promote creativity, ideas need to be mixed and collided against one another to spur new ideas. Innovation cannot be planned by the firm because these idea collisions are serendipitous. They are not planned or confined only to conversation meant for brain storming. Since creativity necessitates previously unseen connections and nonlinear thinking, the information necessary for the next eureka moment may develop from random conversations,

dealing with irrelevant topics. Bureaucracy cannot foresee the development of these new ideas. A paper by Isaac Kohane showed that when researchers were within 10 meters of each other, they were three times as likely to publish a highly-cited paper.¹⁵ The idle, spontaneous conversations that they participated in, provided information necessary to bridge unforeseen gaps in their potential solutions. The more random the interactions people have, the more potential there is for innovation. In an interview with Wired Magazine, Steve Jobs once explained that

"a lot of people in our industry haven't had very diverse experiences. So they don't have enough dots to connect, and they end up with very linear solutions without a broad perspective on the problem. The broader one's understanding of the human experience, the better design we will have."¹⁶

The bureaucracy may try to micromanage this process by allotting time for employees to “intermingle”. But this would only diminish the results. Innovators require two phases to develop a new concept. Upon recognizing the problem, the innovator must spend a period of time focused on developing a solution. He does not need direction for what to do. He understands that by finding certain pieces of information and experimenting with them in certain formats, he will be able to get closer to the solution. Incredibly, our brains are able to tell us when we are approaching a solution, even if we do not know what it is! Psychologists refer to this as a “feeling of knowing”. The innovator knows how much time will need to be spent on this

¹⁵Lee, Kyungjoon, John S. Brownstein, Richard G. Mills and Isaac S. Kohane. "Does Collocation Inform the Impact of Collaboration?" (2010) PLoS ONE 5(12): e14279.

¹⁶Gallo, Carmine. The Innovation Secrets of Steve Jobs. The McGraw- Hill Companies. 2012. 83.

problem and can experiment through trial and error until he hits a wall. Focus can only take the innovator so far. Bureaucracy cannot tell the employee to focus, when he knows he has nothing left to focus on!

The innovator also must utilize deconstructed, “daydreaming” periods to interpret the information while the brain is in an alpha wave state. When the brain is in an alpha wave length it is able to consider possibilities and non-linear connections that previously would have been subconsciously discarded before considered as possible solutions: a moment of insight or eureka. The alpha brain state can be induced through many forms of relaxation like hot showers, taking a walk, or even the use of depressants such as alcohol. Alcohol inhibits our ability to follow a regimented mindset of A to B to C to D and in one study showed an increased capacity for creativity by 30%.¹⁷ Employees within the firm, if given properly incentivized objectives for wealth creation, are able on their own to divide their time between focused progress and relaxed imagination. These ideas then develop and are hit off of other employees (often the random ones we wouldn’t want to ask provide the best feedback) through discourse and synergistic exchange of ideas. Thus, innovation within the firm structure cannot be predicted or directed by an organized planner or through micromanaging regulations. Innovation is derived from the spontaneous order of self-correcting, random interactions.

¹⁷Szalavitz, Maia. How Getting Tipsy May Inspire Creativity. <<http://healthland.time.com/2012/03/22/how-getting-tipsy-may-inspire-creativity/>>. 2012.

Valve

Some companies have made it a goal to minimize the level of hierarchy within their firms and have developed into what are called “flat-lined companies.” Each employee becomes an entrepreneur and must utilize foresight and self-direction to create wealth for the company. The Seattle-based gaming company Valve makes more money per employee than Google, Amazon, and Microsoft. Valve doesn’t leave room for shirkers. The company will only hire self-motivated employees who are able to cooperate in spontaneously forming group projects. If anyone wants to be director of a project (or any other role) they can come up with their own project that will be helpful to the company’s goals. Leaders do not come through hierarchy, but natural ability and skill level. All the work desks have wheels on them and groups are self-structuring; based on trial and error attempts to develop different group structures to develop value adding projects. Employee compensation, based on their level of foresight and value creation, is determined by peer review. Employees are encouraged by CEO Gabe Newell to make try new ideas and embrace ground-breaking possibilities: “Nobody has ever been fired at Valve for making a mistake. It wouldn’t make sense for us to operate that way. Providing the freedom to fail is an important trait of the company.”¹⁸ They must utilize foresight to determine the value in taking risks, because the employees are properly incentivized to maximize their own productivity. This helps to eliminate the leaders in a hierarchical company from getting too comfortable with the status quo and clinging to ideas that were innovative 20 years ago; risking the company’s fate of

¹⁸Valve: Handbook for New Employees.
<http://newcdn.flamehaus.com/Valve_Handbook_LowRes.pdf>. 2012.

extinction. Valve's best ideas naturally bubble to the top because they originate from organic employee organizations incentivized by autonomy and peer review to maximize profit. One disadvantage to these types of firms is the lag time in finding poor employee performance. Gabe Newell still maintains ownership of the company's resources like any other capitalist, but he has left the use of the capital unrestrained. Innovation requires a company environment open to what cannot be planned or expected.

Bridgewater Associates

Ray Dalio was rated the greatest hedge fund manager of 2011 and one of the 100 most influential people of the year by Time Magazine.¹⁹ Like Valve, Ray Dalio's business philosophy has embraced the idea of spontaneous order. Dalio describes an evolutionary process which requires immediate feedback that will develop an upward trajectory toward the employee's and company's goals.

“Every organization works like a machine to achieve its goals. This machine produces outcomes. By comparing the outcomes to the goals, those running the machine can see how well the machine is working. This is the feedback loop that those who are responsible for the machine need to run well in order to improve the machine. Based on the feedback, the machine can be adjusted to improve.”²⁰

¹⁹Volcker, Paul (18 April 2012). "The 100 Most Influential People in the World". Time.

²⁰Dalio, Ray. Principles.

<<http://www.bwater.com/Uploads/FileManager/Principles/Bridgewater-Associates-Ray-Dalio-Principles.pdf>>. 2011.

Thus one of the key focuses at Bridgewater Associates is not to develop red tape to micromanage the behavior of employees, but use constant peer feedback on weaknesses and methods for improvement. Employees at Bridgewater should constantly be focused on evolving and rejecting “bad mutations” while acquiring “good ones”. Ray Dalio calls this “stress testing” his ideas.

Practical Applications

To maximize the value creation by employees, firms need to provide a level of self-direction so that those with the most knowledge and immediate understanding of the work environment can make the most effective choices. These employees must be incentivized to pursue the correct goals and reach them by cost effective means. What this means is that the owners of the company should provide certain benefits in the firm structure so that all employees will be incentivized to a degree, to exhibit entrepreneurial attributes. The capitalist thus has greater value creation because each employee will benefit from utilizing foresight and creating value. Providing stock options for employees would help them have a more invested interest in the profitability of the company. To have even greater accuracy in the fruits of their efforts and be responsible for themselves alone, employees could be paid based on their annual marginal value production. Janitors would each have an area that they are specifically responsible for, and based on their level to increase the efficiency or effectiveness of the part of the firm that is their “private property” they would be compensated for their level of value creation; independent of the efforts of other workers; whose work, ideally, would not affect the value creation of the first employee.

This work can therefore be directed by interest for the work, instead of just monetary compensation, if the employee is given sovereignty over his or her area of work. Employees will

be more motivated to complete their task as an end in itself, rather than just a means to something else. Thus certain employees who exhibit a great level of innovation and value creation can be rewarded with greater freedom to direct their own projects and constantly reinvent their role within the firm. The purpose of this would be to help employees from getting burned out performing the same job, and the capitalist could offer the highest compensation for employees who complete the tasks that no one wants to do.

Another aspect to help motivate the employee is to provide them with an environment which will help them evolve and develop a better skill set; to be capable of more than they were yesterday. Businesses owned by J.D. Rockefeller would have 5-15 minute meetings every day to discuss inefficiencies in the firm and provide immediate feedback so that people could constantly improve and not be inhibited by inconvenient features of the company's structure. A lot of times employees will lose the passion for their work, when it becomes unnecessarily complicated or difficult. By having constant feedback on issues with the company or employee, trial and error can be best utilized to develop an effective firm structure of few rules primarily by human action and not human design.

Conclusion

Both public and private firm structures have utilized bureaucracy to control the activities of their employees and direct production. This method has been ineffective for innovation because it often does not utilize properly directed incentives and constrains the ability of the employee to react in a dynamic environment and create wealth. The firm structure would be best served by maximizing the use of spontaneous order in its organization, thus allowing employees and the allocation of capital to react to dynamic changes in the environment through testing

possible solutions and utilize feedback to promote innovation derived from the spontaneous order of self-correcting, random interactions under properly incentivized methods for wealth creation.

Works Cited

- ⁵Adams, John. Wealth of Nations. Digireads.com Publishing 2008. 264.
- ⁴Bowman, Jack. The Illusion of Choice. <<http://dailyreckoning.com/the-illusion-of-choice/>>. 2012.
- ⁹Clifford, Stephanie. Greenhouse, Steven. Wal-Mart's U.S. Expansion Plans Complicated by Bribery Scandal <<http://www.nytimes.com/2012/04/30/business/wal-mart-bribery-scandal-complicates-us-expansion-plans.html?pagewanted=all&r=2&>>. 2012.
- ²⁰Dalio, Ray. Principles. <<http://www.bwater.com/Uploads/FileManager/Principles/Bridgewater-Associates-Ray-Dalio-Principles.pdf>>. 2011.
- ^{1,2}Hobbes, Thomas. Leviathan. Forgotten Books. 2008.
- ³Hobbes, Thomas. Philosophical Rudiments Concerning Government and Society, 1651 [Rudiments], iii. 13. 46.
- ¹⁶Gallo, Carmine. The Innovation Secrets of Steve Jobs. The McGraw- Hill Companies. 2012. 83.
- ¹⁵Lee, Kyungjoon, John S. Brownstein, Richard G. Mills and Isaac S. Kohane. "Does Collocation Inform the Impact of Collaboration?" (2010) PLoS ONE 5(12): e14279.
- ^{6,7,8}Mises, Ludwig von. Liberalism. Mises Institute. 2002. 101.
- ^{12,13,14} Smalley, Art. Toyota by Toyota. Taylor and Francis Group. 2012. 93, 99, 95.
- ¹⁷Szalavitz, Maia. How Getting Tippy May Inspire Creativity. <<http://healthland.time.com/2012/03/22/how-getting-tippy-may-inspire-creativity/>>. 2012.
- ¹⁸Valve: Handbook for New Employees. <http://newcdn.flamehaus.com/Valve_Handbook_LowRes.pdf>. 2012.
- ¹⁹Volcker, Paul (18 April 2012). "The 100 Most Influential People in the World". Time.