1c. Scientific management

Approach

Historically, a worker's task would be made better with experience. For example, an experienced ironsmith would have organically developed a fairly efficient, high-quality way to perform his tasks. Scientific Management — also referred to as Taylorism, after its founder, Frederick Taylor — is a scientific (mathematical) approach to management. One of its proponents — Frank Gilbreth — described the approach as follows:

> “ We have here a science that is the result of accurately recorded, exact investigation... Its fundamental aim is the elimination of waste, the attainment of worthwhile desired results with the least necessary amount of time and effort. Its primary aim is conservation and savings, making an adequate use of every ounce of energy of any type.
>
> Gilbreth & Gilbreth, 1917

At the centre of the approach are time-and-motion studies; fundamentally, a large task is broken into sub-tasks and each sub-task is then measured and their duration and precedence optimized such that the entire duration of the task is minimized. The approach has had a profound impact on modern management. Its most impactful application — the assembly line — significantly increased the productivity and efficiency of factories.

The article "Not so fast (https://www.newyorker.com/magazine/2009/10/12/not-so-fast) " from The New Yorker provides a good description of Scientific Management.

Problems with the approach

There are several problems with the scientific management approach when applied to real organizations.

1. First, it has **limited applicability** in modern organizations.

    - While the approach works well for analyzing a physical task, it is very difficult to measure the steps involved in a cognitive process. As a job becomes more complex, it becomes more difficult to measure. For example, how would you apply scientific management to the task of solving a math problem?
    - In addition, the approach is best suited to situations where one individual is performing a task. Its applicability is diminished when we consider group tasks, which require components such as communication and coordination that are not easy to measure and optimize.

1. Second, the application of this style of management, in particular the **pursuit of optimization**, to organizations can have a number of **undesirable consequences**:
    - Optimization of a task leads to a very strict description of the performed task, both in terms of how and for how long. The repetitive nature of the resulting task can alienate workers, even if the job itself may appear "optimal".
    - The development of specific, timed sub-tasks that a worker must perform remove any aspect of decision-making from the job. People generally don't like losing autonomy in their jobs. As such, in modern factories, workers can become suspicious of time and motion studies.

Ultimately, if a job can be really broken down to such elementary motions that we can measure and optimize, then we can likely create machines (e.g., robots) to perform that task.

References

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1d. Bureaucracy

Approach

What does the word "bureaucracy" bring to mind to you? To most people, the word "bureaucracy" implies inefficiency and red-tape, an impediment to getting things done.

Yet, this is far from being its purpose and role in modern organizations. The bureaucratic approach emerged in the late 19th — early 20th century and is attributed to Max Weber and Henry Fayol, who had long been concerned with the irrational nature of how work was performed in organizations. They had noticed that a lot of time was wasted doing needless work, that there were high rates of turnover (with the resulting loss of all the knowledge and expectations of the role each time an employee left), and that getting work done was often a function of "who you know".

Max Weber was really impressed by the functioning of modern machines and sought to apply the same kind of rationality and efficiency to businesses. He called his approach "bureaucracy" — the power of the office. But what is an ideal "office"?

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Bureaucracy in action

To better understand this concept, we will use the example of the University of Waterloo bureaucracy. The Human Resources department publishes the staff job descriptions (http://www.hr.uwaterloo.ca/jobdescriptions/jobdesc.html) of every single **staff** role (or as Weber would label it, "office") in the organization. Note that these are not job descriptions waiting to be filled; they describe in detail every single staff position, whether someone is occupying them or not.

Let's take the example of the " Math Society Coffee and Donut Shop Manager (http://www.hr.uwaterloo.ca/.jd/00001092.html) ".

The job description for this position details accountabilities, requirements, decision making aspects and a number of other components of the role. Indeed, as Max Weber would prescribe, **(1) the role/office must have fixed and official jurisdictional areas ordered by rules**. In practice, this means that

- the employee occupying the office possess “legitimate” authority based on formal position (and not on other forms of power such as charismatic power)
- there is a separation of the position/role from the person occupying it. Indeed the C&D Shop Manager position description says nothing about its current role occupant
- the office has clearly defined authority & responsibility (e.g., the shop manager is responsible for "all major operations of the Math CnD")

OMGUW. (2015, February 21).

Bureaucracy also prescribes that **(2) positions/roles have a firmly ordered office hierarchy** (i.e., chain of command). You will notice that the C&D Shop Manager is supposed to report to the Math Society President & Director Commercial Operations (Federation of Students) and that no one (in the official university staff) reports to the C&D Shop Manager.

Finally, **(3) the activities of the office should be based on written documents**, or “the files”. Think about all the paperwork that running the Math C&D entails for its manager. Examples of written documents comprise payment forms with the shop's vendors and schedules and payments of student employees.

Problems with the approach

Fundamentally, central to a bureaucracy are procedures, rules and other controls, and formal record keeping. While some level of bureaucracy is necessary in any organization, the (mis)application of bureaucracy to organizations can sometimes be problematic:

- The first issue is that the approach **views organizations as rational and expects them to behave as such**. It is assumed that organizations are rigid and dependent on rules and procedures: a path of authority and responsibility is clearly specified and followed. However, people are social creatures that in practice try to "optimize" their own work, taking *shortcuts*. Sometimes following the prescribed path takes too long and so the sequence is skipped.

  For example, if a professor wants to hire Undergraduate Research Assistants (URA) (https://uwaterloo.ca/engineering/ura) , (s)he is instructed to follow the prescribed steps . The professor must first create a project description and have it uploaded to the "Supervisors' List". Interested students are then supposed to find interesting projects in the list, contact professors, meet with them, and hopefully the process will result in a number of successful URA match-ups. In practice, if a professor has a project and some funding to support a URA, (s)he might bypass the prescribed process altogether and find a suitable URA by contacting students (s)he knows already or asking for recommendations from colleagues.

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- Second, the **rules are not always appropriate** (maybe they were appropriate at some point, but more on that in the third point below). They lose meaning over time.

For example, recently the course instructor was suffering from a very sore throat (all signs pointed at strep throat) and visited a Walk-in Clinic. The doctor there followed protocol, took a swab and sent it out to be tested, with the results expected a few days later. Due to the severity of the pain, the instructor visited another Walk-in Clinic later that day, where the attending doctor was able to assess that it was indeed strep throat (without a swab) and prescribed much needed antibiotics.

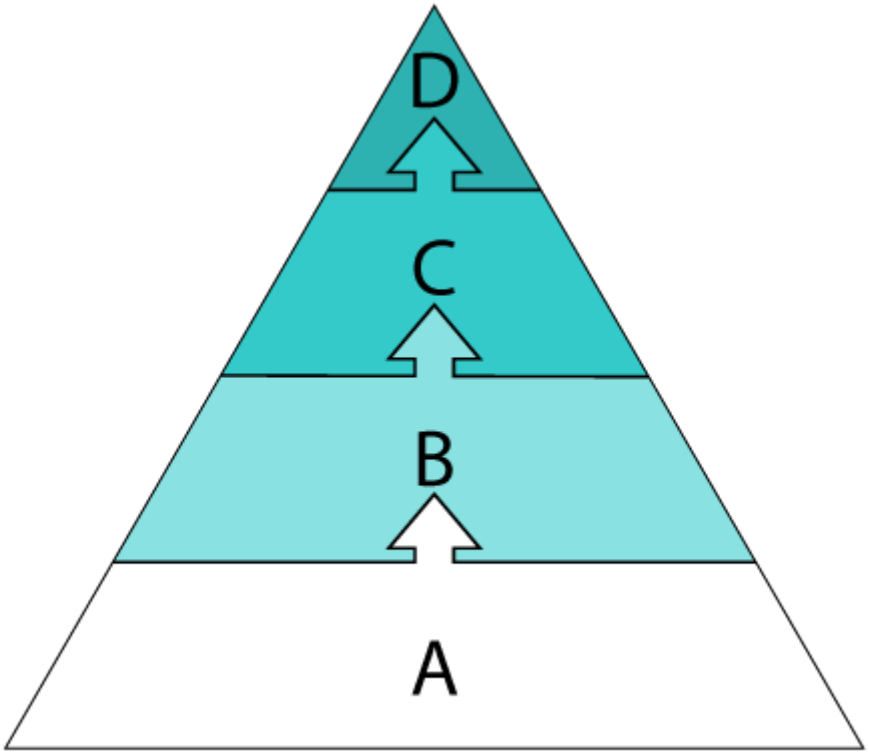
- Third, **rules are hard to change**. In fact, the bureaucracy will have very specific rules on how rules can be changed.

  For example, all of the policies and guidelines that govern the University of Waterloo are listed in the Secretariat Policies, procedures & guidelines (https://uwaterloo.ca/secretariat/policies-procedures-guidelines) . Updating those policies is not easy. In order to update the current policies, back in 2013 the university formed the " Policy Renewal Project (https://uwaterloo.ca/secretariat/policy-renewal-project) ", tasked with "reviewing and renewing the policy management framework and existing library of university policies". The project won't be completed until 2020!

- Finally, sometimes a bureaucratic organization results in **managers making decisions based on limited information**. The reason for that is because bureaucracies require strict hierarchies that prescribe how communication travels *upwards* from employees to their managers, to their managers' managers, and so on. This is not always efficient: every time information passes a link in the hierarchy, it runs the risk of being distorted and/or losing its richness. By the time the information has reached the decision maker, he/she is making a decision based on information that may vary significantly from the original source.

  For example, you can imagine an employee (A) who creates a report that analyzes customer data to assess the effectiveness of existing marketing efforts and recommend improvements. His manager (B), who receives her report, will likely only read the executive summary and recommendations, and then communicate the gist to her manager (C).

That communication may end up being further synthesized into a one line recommendation that C then provides (together with other recommendations from other areas) to his manager (D). D — the decision-making manager — will approve or reject the recommendation, without being aware of much of the details that A had originally worked on.



More resources

You may find the following National Film Board (https://www.nfb.ca/) (NFB) documentary, 'Paperland: The Beurocrat Observed' (58:06), on bureaucracy helpful in understanding modern bureaucracy in a variety of organizations.

0:00 / 58:06

Donald Brittain (1979). "Paperland: The Bureaucrat Observed". Retrieved from https://www.nfb.ca/film/paperland/

Transcript (PDF) (https://preview-uwaterloo.cloud.contensis.com/sites/courses/1201/MSCI-311/media/documents/paperland-transcript.pdf)

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1. OMGUW. (2015, February 21). [Photo of Math C&D]. Retrieved from http://bestofuw.blogspot.ca/2015/02/the-best-place-on-campus-to-get-food.html

10a. Power

Introduction

We define power to be "the ability to get things done the way one wants them to be done". (Salancik, G., & Pfeffer, J., 1989). Another definition for power is "the ability to **influence** others". ("Power". 2018).

Power is contextual; it doesn't exist in a vacuum. No one is generally "powerful" or "powerless". Rather, power must be exercised over others. In other words, one is only powerful if one can exercise that power over someone else.

Sources of individual and organizational power

There are multiple sources of power in an organization, including place in the hierarchy, personal attributes, etc. Below we identify some of the main sources:

Authority (or legitimate power)

Authority is the formal power one gets as a result of one's place in the organizational hierarchy. This power comprises the legal authority a person has over their subordinates, and is unrelated to personal characteristics. In an organizational bureaucracy, the power (authority) associated with each position/role will be spelled out in the role's description.

Authority is legitimate power, a part of organizational life that is accepted and expected. While authority is exercised downwards, an individual can also exercise other types power in other directions as well (see below).

Expert power

Expert power is power that one achieves through special knowledge and expertise, such as for example, being the only person in an organization that knows how to use a technology. Experts may achieve another layer/source of power - **non-substitutability** - by using specialized language and symbols to ensure that that power is withheld from others.

Reward power

Reward power is achieved when one has control over something that is valued by others. For example, a department scheduler (who is responsible for scheduling classes) could hold reward power over professors who may be looking to schedule their classes at particular days or times.

Referent power

Individuals in organizations gain referent power through their personal characteristics and abilities that distinguish them from others. For example, a senior organizational member that has accumulated experience and wisdom and who has a likable personality, will typically have earned referent power.

Manipulation and persuasion

Some individuals may gain their power from their ability to convince others, which directly helps influence others. The difference between manipulation and persuasion is that in the case of manipulation, the motives of the manipulator are hidden from the target of manipulation.

Control over resources, information, and centrality

Individuals may gain additional power (over and above their legitimate power) if they sit near or in the chain of important communication (and thus have access to valuable information that is not openly accessible to the rest of the organization). They can also gain power if they are close to the primary activity of the organization (e.g., working on a project that has been identified by the organization as critical to the organization's success).

Women and power

Traditionally, women in organizations have held,overall, lower power. The differences in power between men and women have also been accompanied by sexual harassment and a persisting gender-based pay gap. Explanations for this gender-based power imbalance include:

- **Sex-role stereotypes**, according to which men and women are expected to behave differently. Even when women assume attitudes and behaviours that are stereotypically male (e.g., "toughness", assertiveness), they are perceived as "bullies" or too "bossy".
- **Early childhood socialization** leads to differentiated behaviour at an early age. Girls will typically play in smaller groups, while boys will play in large groups. The latter context promotes valuable (and stereotypically male) skills like leadership, assertiveness, negotiation, and team-building.
- Women face a **glass ceiling when it comes to achieving managerial positions.** Even when women do advance in the managerial hierarchy, it is usually only in certain (stereotypically female) areas that are female-dominated (e.g., human resources). Unfortunately, if an occupation is majority-female, its status (and pay) is reduced significantly. Consider, for example, the occupation of early childhood educators.
- Women are also seen as being affected by **unequal expectations about their roles at home**. Women are often expected to maintain a primary care-taking role at home, regardless of the time and effort required by their work.
- Some have attributed the difference in power to **differences in leadership behaviour**. For example, some experimental studies have shown that women are more "people-oriented". Women are thus stereotyped as "better listeners", "more relationship-oriented than task-oriented", and more suited to "participative versus autocratic" decision-making.
- Finally, women in male-dominated organizations become **tokens** and their behaviour is magnified to reflect gender stereotypes. Tokenism is "the policy or practice of making only a symbolic effort (as to desegregate)". ("Tokenism", 2018). It also applies to other types of minorities.

References

Salancik, G., & Pfeffer, J. (1989). Who gets power. In M. Thushman, C. O'Reily, & D. Nadler (Eds.), Management of organizations. New York: Harper & Row.

Power. (2018). Adapted from Oxford. Retrieved from https://en.oxforddictionaries.com/definition/power.

Tokenism. (2018). Merriam-Webster. Retrieved from https://www.merriam-webster.com/dictionary/tokenism.