TIME AND CHAOS MANAGEMENT.
THE NEED FOR BETTER TIME MANAGING SYSTEMS

Vlad BÂRSAN
vlad.barsan@gmail.com
Ioan BONDREA
ioan.bondrea@ulbsibiu.ro
Dan MIRICESCU
dan.miricescu@ulbsibiu.ro
Raluca ROCA
raluca.roca@yahoo.com
“Lucian Blaga” University, Sibiu, Romania

ABSTRACT
The purpose of this paper is to identify the need for new tools and new methods of managing time. It is the preamble of a study meant to help organizations be more flexible and prepared in fast growing markets.

Defining and analyzing time and chaos management, as well as presenting the problems addressed by these concepts, are essential to establishing the grounds for assessing the correct course of actions to improve the effectiveness and efficiency of people as individuals and as workers within an organization.

KEYWORDS: time, chaos, management, efficiency, effectiveness

1. Introduction
In modern society, highly industrialized and rapidly changing, the fast pace is a reality of everyday life. While we try to keep up, things seem to take place too quickly. We often say to ourselves: “I wish I had more time to...” or “I don’t have time for myself...”.

At first glance, the solution would be simple, more time. I wonder how much it would help to get an extra hour each day. How many of us would say that he/she finally has enough time? But how realistic is such a solution?

Time is finite. We only have 24 hours each day, seven days a week, and 365 days a year. We are all equal before time. Our occupation, education or position cannot “buy” us more time. Even if we do not possess the power to control time, we can learn how to use it in a more efficient manner.

To be able to do this, we must first understand why we need such a management, which are the problems addressed by this management and only then can we try to find a solution to our own flawed time management system.

2. Time Management
2.1. The concept of time management
The concept of time management refers to managing time effectively,
according to certain priorities; in other words, time management helps us do the most important and/or urgent activities, in a given period of time.

Time planning allows channeling efforts and efficient use of energy to achieve those tasks that bring maximum success and satisfaction.

![Fig. no. 1 Time planning](image)

Peter Drucker, considered that efficient decision factors do not start with their activities, but with their available time. “The available time” must be considered and ordered into three continuous periods, as a three-step process: recording, organizing and consolidating. The first step to efficient leadership is the actual use of time and the systematic organization of time is the next step.

There are three steps for managing time efficiently: organizing, prioritizing and planning.

The more organized you are, the more efficient you will be in using the 24 hours of each day. Every morning, before leaving for work, make a list of everything that you have to do, or you want to do that day. At first, do not think of which activity is more important. Once you get used to doing this, you can extend your list to longer periods of time. This can help you see ahead, especially when it comes to long-term projects.

The next step is to prioritize activities on the list. Put the letter “A” next to the activities that you have to do, the letter “B” next to the activities you should do, and the letter “C” next to those that can be left for the next day. Always have in mind the deadlines of those activities. This will help you to know how important they are and what priority to assign. Do not waste time. Do not wait for the last possible moment to start the activity. It is the most inefficient way to do things.

Now that you have prioritized your list of activities, you must plan them according to their duration. Specify a time of day you want or can do them. Your schedule should be flexible. Leave room for breaks, socializing and other unexpected things. Do not plan every minute of the day. As you plan, keep in mind your needs and personal habits. For example, do not plan intense mental activities in the morning if you know you are a not a morning person, and you are sleepy until lunch.

Time management means respecting a set of principles and practices designed to increase the efficiency of the time required to fulfill certain tasks and to increase productivity.

Based on the words of Mahatma Gandhi, “Be the change you want to see in the world”, we realize that time management in an organization starts at the lowest level (the employee) rising to the top. The fact that a company has its objectives, rules and principles relating to time management very well developed and clearly defined, is only the first step in a long journey. Each employee must know, understand and implement those principles in his/her daily work. Only when all employees manage to organize their time well, we can say that the organization has an effective time management [1], [2].
2.2. Symptoms of a poor time management

Feeling that the time available is never enough: lack of efficient organization of tasks and activities, gives the impression that we do not have enough time to accomplish them. Wasting time with endless meetings, with the problems of other people and delaying work, puts us in a position to do things rashly, in the last possible moment.

Increasing the “to do” list: failure to correctly manage our time pushes today’s activities on to the next to do list, making it longer and harder to fit them all in our already busy schedule.

Feeling that tasks are never clear: stressed, pressed by time, we fail to listen and understand the important aspects of the problem. When we finally get to the task at hand, we realize that we did not understand exactly what to do and, in order to begin, we need clarification.

Projects get more complex as they are carried out: delaying certain activities leads to the accumulation of more and more tasks to end of the project which gives us the feeling that the project is more complex than it actually is [3].

The feeling that deadlines are getting closer: it is a feeling that occurs along with the accumulation of activities towards the end of the project. We feel that no matter how hard we work, the work is never finished and the completion date is closer and closer.

The feeling that no one works and that this slows the project: always rushing to meet deadlines, we consider this to be the normal working rhythm and if someone works slower than us, we get a feeling of frustration.

Insufficient time for interpersonal relationships: because of high workload, spending time with family is becoming considered an extra burden.

2.3. Consequences of a poor time management

2.3.1. Consequences for the workers as individuals

Stress: the lack of control over our activities felt because of a poor time management, makes us irritable, tense, feeling that things are going to have a negative outcome and that we do not have time to achieve what we intended. These thoughts and emotions stop us from analyzing the alternatives and possible solutions.

Fatigue: working 12 hours a day instead of eight, fearing that we will not finish in time, we use a lot of energy, which makes us feel exhausted. Inefficient use of resources incapacitates us from effectively solving our tasks.

Depression: realizing that we have more and more to do, that the deadlines are close, instead of carrying on to finish what we started, we fall into depression, thinking that we are not capable and that we are not fit to be doing this kind of work. This resignation will only result in delaying tasks, in decreasing our work rhythm and eventually in not meeting our deadlines.

Fear of failure: failure to meet deadlines can have significant negative consequences on us – decrease in salary or job loss. With this in mind, we become tensed, our stress levels go up, and we cannot concentrate on our objectives but rather on our potential failure, impacting our work quality.
2.3.2. Consequences for workers in relation to others

Poor organization of work, postponing tasks, not meeting deadlines results in the delay of other team members and other people in the organization.

Lack of synchronization in the development stages of projects or activities that involve more people can generate a tense climate, with accusations and quarrels which consume time and energy.

Working extra hours to get our work finished in time, puts a lot of stress on the family members as well. They feel neglected and begin to pressure us to make more time for them.

2.3.3. Consequences for the organization

Decreased productivity: a poor time management does not use the organization's resources optimally. It is possible to obtain the desired results, but with a maximum of resources. Also, workflow is slow, deadlines are missed, and the company is not functioning at full capacity.

Increased costs: a delayed project means lost time and therefore, lost money.

Conflicts: an employee who cannot plan his/her work well, delays colleagues, delays the entire project, which could result in a conflict environment that affect the organization as a whole.

3. Chaos Management

3.1. Chaos theory origin

The chaos theory is the scientific principle that refers to the lack of predictability of systems. It is based on the idea that systems originate from chaos, generating energy, without having a predictable pattern. Examples of such systems are meteorological patterns, ecosystems, the flow of water or even organizations. Although the chaotic behavior of these systems might seem to lack logic, they can be defined by a mathematical formula and they are in fact limited and with order.

In the beginning of the 1960’s, a few scientists from various fields of study would talk about “strange behavior” of complex systems like the earth’s atmosphere or the human brain. One of these scientists was Edward Lorenz, who experimented with computerized models of the atmosphere. During one of his experiments he discovered one of the fundamental principles of the chaos theory – The Butterfly Effect. The name comes from the idea that a butterfly can flap its wings in Tokyo and set off a hurricane in Chicago. Scientifically, the butterfly effect proves that the forces that govern the weather are instable. These forces allow small variations in the atmosphere to have a major impact somewhere else. This proves that insignificant changes can have
exponential effects. It also helps demonstrate the fact that random events are not caused by external influences, but by minor fluctuations inside the systems.

James Gleich, a French physicist/mathematician, wrote that turbulences in fluids are linked to a bizarre and infinite complicated attraction factor called “weird attractor”. During the mid 1980’s, chaos was a keyword used in a growing number of changed science institutions and a growing number of papers emerged based on this phenomenon. Universities started looking for chaos specialists to fill their managing positions. A center for nonlinear studies emerged in Los Alamos, as well as in other locations and similar institutions for studying complex and dynamic systems. A new language was born, having the terms: fractal, bifurcation and “fine noodles map”. In 1987, James Gleick published his masterpiece – *Chaos: Making a New Science*, in which he would elaborate on the development of the chaos theory, as well as the progress of science and the scientists involved [4].

3.2. The science behind the chaos theory

According to James Gleick, chaos is a “global nature of systems” science, which is why it can be applied in any subject, from ecology to medicine, from electronics to economy. It is a theory, a set of believes, as well as a scientific research method. Chaos models allow the use of more variables in an imaginative space, leading to more complex imaginary results. Even this model must however presume that any variable can be graphically represented and does not take into consideration the changing number of variables in real-life situations [4].

The main tool used in understanding the chaos theory is the dynamic systems theory, which is used to describe processes that constantly change during a period of. When systems shift from their stable state, they go through an oscillation period, moving back and forward between order and chaos. According to Margaret J. Wheatley in *Leadership and the New Science*, “chaos is the final stage of movement of a system, from order”. Wheatley agrees with researchers John Briggs and F. David Peat and explains the oscillation process: “Obviously, the familiar and chaotic order, are both strips of off and on tapes. Following certain tapes, a system can be cut, observing its transformation and pulled towards disintegration and chaos. On other tapes, the system is dynamic and cyclic, maintaining its shape for long periods of time. Eventually, all organized systems will be pulled towards the wild, by the weird chaos attractor” [5].

In simple terms, each system has the potential to fall in chaos.

According to Briggs and Peat, “the WHOLE depends on its smallest component. That part represents the whole, because with the action of every part, the whole can transform its self into chaos”, therefore, we must recognize the importance of each individual piece because it has the ability to fluctuate chaotically and without predictability within the system. The governing principles of the system (the attractors) allow these parts to adhere to other parts for certain periods of time, forming defined and predictable shapes. The chaotic movements have finite limits, which allow infinite possibilities to emerge [6].

3.3. Actual practices of chaos theory

One of the most often mentioned example is the flow of water through a faucet. Recently, it has been proved that Pluto’s orbit is chaotic. By using techniques to control chaos, scientists made stabilizing of lasers and cardiac rhythms possible.

Another area, in which chaos is useful, is in organizations. Applying the chaos theory in organizational behavior allows the management to observe how organizations function as integrated systems. For this, we must first identify the organizational patterns that cause the
organizational behavior and then we can find solutions to the problems the organization is confronting with.

By encouraging certain people to be self-sufficient, we allow them to create their own type of organization, changing some relationships between parts and developing multiple possibilities for people to interact, to govern themselves, until they reach a higher efficiency. An organization that encourages this type of management is called a fractal organization, which trusts in natural organizational phenomenon, to find its own order.

Traditional management does not want include chaos and disorder into their carefully outlined plans. According to Wheatley, “it’s hard to open up to a world without a seeming of order”. Organizations are led through structure and planning. They use organizational charts to describe the hierarchy and have clearly defined job descriptions for each employee. The experts divide an organization in small pieces, building models and organizational patterns to improve the functioning of the organization by controlling it. The chaos theory explains that, not only these endeavors are not necessary, they might cause more damage than good to the organizational system as a whole [5].

One of the most influent business writers, Tim Peters, wrote, Thriving on Chaos: Handbook for a Management Revolution in 1987. He offered a strategy for corporations to face competitive markets uncertainty by customer awareness, growing innovations, employee empowering, and mostly, by learning to work in an ever changing environment. Actually, Peters says that we leave in an “upside-down world” and that survival depends on embracing “the revolution”. Although not entirely preoccupied with the chaos theory, Peters focused on allowing the organization (and its employees) to govern itself, which was compatible with the chaos theory.

Global economy and technology continue to change the way business are governed, making the signs of chaos theory visible. If there was a time when organizations could be successful without having to adapt, modern corporations must be capable of reorganization according to market emergence and technology evolution. According to Peters, “in order to meet the demand from fast changing competition, we must learn to love change as much as we used to hate it in the past” [6].

4. Final Words

A lot of organizations are reluctant in using chaos management, because the outcome of such an endeavor cannot be controlled, estimated and sometimes there is not the possibility to guide it toward a positive result. Instead, they use the tools and methods given by the classic time management such as the Pareto principle for analyses, the Time matrix for work planning, and other variations of methods for time tracking, effort estimation and so on. Some organizations try to educate their employees in respect to time management tools, but even this, does not bring the desired results.

For a good education of the employee, and to ensure that he will implement in his daily activities the new learned teachings, we need to create in each individual, the need to become better. Once this is achieved, the employee will look for ways of improvement on his own, and here the organization can again interfere, by guiding him to specific methods, tools and instruments, in time managing.

To be able to create such a need, we must take a lot of aspects into consideration, such as: education, culture, philosophy, ethic, social position, work position and many other elements that drive an individual. For this, we must focus on chaos management. Even if the end result is that, each individual will use his own version of a classic time management system, the means to do this is to use chaos to our advantage.
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