

TIME MANAGEMENT IN THE MANAGING INNOVATIVE DEVELOPMENT OF ENTERPRISE

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Abstract: *In article is researched establishment of time management system. It is shown uniqueness of the given factor in the organization of production processes. There are formed author's approach to the definition of "time management" and use of the time factor in the functioning of innovation processes.*

Keywords: *time management, time, investment, management, organization, resources, project.*

Introduction. Global crisis retract their turnovers in Ukraine, therefore it is necessary to consider the prospects of innovative development of enterprises and look for alternative ways and modern models of enterprises management.

These models should be based on innovative basis of production growth, more efficient use of intellectual resources, and the timely exploration of research results in order to use progressive techniques and technologies. System improvement of enterprise organization, namely the use of methods of time management, can reduce excess expenditures of labor and improve labor productivity.

Brief Literature Review. Classics of time management theory are considered F.Taylor, K.Makhem, M.Meskon. Nowadays this problem is studied by scientists and publicists from different countries and already proposed many methods of time management. Among contemporary authors of former Soviet Union are O.Gorbachev, E.Merzlyakov, V.Rastymeshyn, G.Arkhangel'sk, O.Hastev and others. The most widespread are the works and approaches of foreign experts L.Zayverta, J.Knoblauha, K.Bischof, P.Doylya, S.Covey, B.Tracey, B.Santo, J.Cowley and others.

The purpose of this article is substantiation of new way of organization management based on using effective methods of time management.

Results. «Time management» is somewhat abstract category. Time management does not exist in nature. Human can only manage that things on what can direct its influence, such as the distribution of own funds, etc. Understanding of the time nature and building of life should be with understanding of two basic characteristics of time - limited and fluidity. «Time is money» - not entirely accurate statement. Time has wider application than money. Time is all that is given to us in this life. Time and life are synonyms. Time can be invested. The rest can be invested only taking into account time. Human needed and needs universal currency for the evaluation of the way that he chooses every second. Historically, it is money, but time is a measure more natural and universal. That's why more natural to build business on time resources, not on the money [1]. Therefore, there is a need for extensive use of time management system.

On the introduction of the term «time management» pretend company Time Management International. Its founder, Dane K.Meller, in 70s invented TimeManager - difficult arranged notebook-diary that can be considered the ancestor of modern organizer [2].

For S.Pryntom, time management is technologies of time management in real situations of everyday life, it is a lot of examples, techniques and practical recommendations that make the proposed concept of time management visible and that are easily memorized [3, c.145].

Time management, according to B.Treysi, is the art of managing not only of its own time but also of life in general. He compares it with the sun, and all components of human life - family, relationships with others, revenues, earnings, health, self-improvement is the planets that moving around it [4, c. 79].

According to Vladimir Usov, time management is a redistribution management of work volume, required resources in a given time and space [5, c. 59].

Therefore, in our opinion, time management is a set of methods of optimal organization of strategic management, planning, project implementation, ongoing tasks and calendar events.

Thanks to its properties, time characterizes not only a quantitative, but also qualitative changes in the condition of different types of matter. Just time makes it possible to measure any form of movement and disparate processes, to determine changes in the internal state of the object, penetrate in the essence of economic processes, understand the patterns of its development [6, p. 26].

Time for businesses is as important resource as money. Time is one of three options, along with the cost and quality that determine the position of enterprise on the market. However, often there are such situations that on urgent and important tasks of enterprise as the whole, so ordinary employees, do not have time generating significant demand on the use of time management.

It should be noted that the innovative process is the result of well-organized strategic planning and market-oriented management need to be based on the results of long-term and medium-term forecasting of scientific-technological and innovation development [7, p. 8].

It does not require evidence the fact that every organization is a fairly complex technically and economically structure. And from the choice of its strategy, from the particular method of interaction and communication links in its components, from management of working time depend the success of the enterprise [11; 10].

On the basis of implementing the strategy, there are forming business values, foreign culture and the image of the company. It is the basis for the introduction of time management system and the ability to create an internal culture. System of time management is located between two cultures - external and internal.

The time factor alongside with price and quality of products determines the success of the enterprise functioning on the modern market (table. 1), because the main objective is the effective use of time.

Table 1 The impact of the time factor on the competitiveness of enterprises [12, c. 16]

Time factor	The impact on the competitiveness of enterprises
Minimizing costs	Minimization of the cost of warehousing and storage through a coordinated, efficient operation of enterprise.
Reducing the final price of the product	Analysis of the main and subsidiary activities helps to establish in which is the largest growth of value, and where there is potential to reduce it by changing the placement of activities.
Fast adaptation to market changes	The implementation of fast response system that allows reducing time of performing operations and delivery period.
The elimination of time operations	Reduction of the production cycle by decreasing time of receipt of material flow at all levels of the supply chain.

V.Savchuk [13, p. 124] states that in times of crisis the decisive factor of preserving effectiveness of the company is the speed and confirms it of possibility use of the theory of relativity and the formula for determining the energy of the physical object:

$$E = m \times c^2$$

where E – effectiveness of organization;
 m – mass or volume of used resources;
 c – speed at which the resource is used.

Expressed in square, speed rate indicates a more significant influence on the result compared to the amount of used resource.

Time management system should be implemented from the perspective of complex relationship between internal factors of enterprise functioning such as goals, objectives, structure, technology, and people.

An important step in creating an effective system of time management is defining the objective of both the short and long term period. Management, based on the prevailing objective, is not associated with additional effort, since it is based on the planning process with the definition of deadlines of planned actions or events. The goal is not only determine that actions that should be undertaken, but also stimulates their performance. It is necessary to turn the goal into the action plan, including determining the most priority areas. Successful ranking of tasks by importance has a significant effect on growth performance.

For evaluation of innovative type of production often is used time criteria that are listed in

table 2 [8, c.300].

Table 2 Comparative characteristics of traditional and innovative types of production *

Indicators (characteristics)	Type of production	
	Traditional (extensive)	Innovation (intensive)
Duration of production cycle	Months (with a tendency to increase)	Days (with a tendency to decrease)
Time of readjustment production	Days	Minutes
Terms of orders performance	Up to week	Up to 1 day (1 hour)
Supplies of materials and semifinished products	Volume of monthly demand	Volume of needs per hour
Reaction of production systems to changing market demand	Slow	Fast

* Compiled by authors

At innovative type of production all processes are performed quickly, efficiently, accurately the duration of the production cycle lasts for days with a tendency to decrease. Speaking of the traditional type of production, then there is observed longer duration for all processes in the company. Therefore, using of an innovative type of production is more effective than traditional.

Typically, time management is essential in the development of any project, it defines the end time of the project and its scope. It should be noted that for the innovative development, an important role plays the payback period of innovative projects, it describes the risk and liquidity of the project, because it shows how long the investment capital will be “in a position of risk.” Thus, all things being equal, the shorter the payback period is the more liquid project. A long payback period means that the investment will be linked for many years and so the project is relatively illiquid [8, c. 405]. Today we can say that time is one of the key driving factors influencing the innovative enterprises as innovation activity always associated with risk.

At the core of innovative development lies purposeful process of search, preparation and implementation of innovations that can improve production efficiency. An important role in this process plays innovation infrastructure. It provides both movement of information, knowledge, technology, market flows and interactions between different institutional structures.

On the importance of innovation infrastructure indicate studies of American scientist F. Lin, who found that the average period of innovation exploration was: from 1885 to 1919 - 37 years, from 1920 - 1944 years - 24 years, from 1945 - 1964 years - 14 years; quantum phys-

ics, nuclear power, electronics - 3-5 years, mobile phone - 1 year. Innovative infrastructure began to emerge from the early 50s of the twentieth century, was developed in the mid-90s of the twentieth century, which also confirms the significant role of innovation infrastructure accompanied by all stages of the innovation process to preserve its continuity and reduce the terms of innovation exploration.

In the process of innovation management, time management is an integral part of activity of any successful company. It plays an important role in the functioning of the company, because the sooner and more quickly the company will enter the market and mastered it, the more revenue it will receive. The time factor directly affects the economic performance of the implemented innovations (Fig. 1). Therefore, one of effective criteria of innovative technologies should serve the duration of preparation stage of innovations to entering the market, a new product or service.

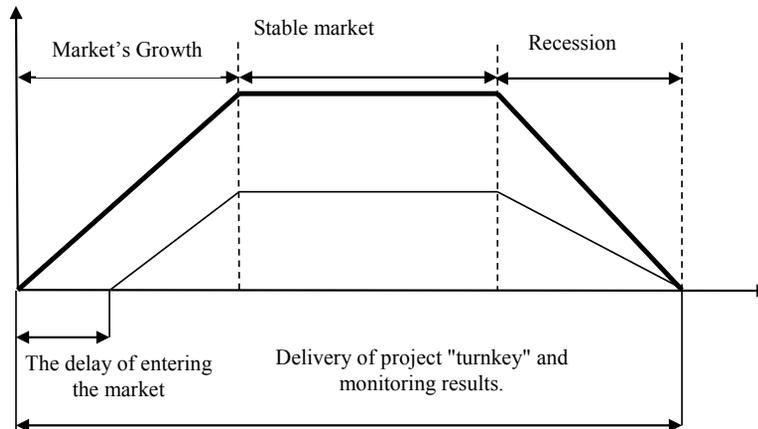


Figure. 1. The increase profits through advancing output of innovations to market

If a company in the XXI century does not deal with time management, it means that other competitors will win the competition at the same level of price and quality, but being engaged in time management. We cannot miss any opportunity to become in something more effective and better than others. To keep pace and achieve timely results to be ahead of competitors, you must be able to control time.

Table 3 Examples of the influence of the time factor on enterprises *

Objects	Characteristics of the influence
Japanese model - the fourth generation of the innovation process by Roy Rosvellom	Model of advanced experience is based on a parallel activities aimed at simultaneous work on a project of several groups of experts.
Use of time norms	improving labour productivity and its financial incentives; planning basis at all levels of organization production and labor; reducing downtime in production.
The organization of the production process	Using consistently parallel and parallel type of movement objects of labor, which can perform faster workflow.
Management organization	planning work; use organizer; delegation of authority; the ability to prioritize.
Net planning and management	Parallel performance, which significantly reduces the yield.
Virtual enterprises	rapid response to market requirements; execution speed of orders.

* Compiled by authors

On innovative enterprises in China the entire innovation process shares in many small steps. Above each stage can handle few dozen employees in teams. If necessary, people can migrate from team to team. Often the work on stage can go along or include representatives of various departments. The workers help each other, believing that the main thing - it is timely made project. They use informal relationships that help more quickly resolve the problem [9].

In Japan exists method of “Kaizen”, which based on the principle of “one minute”. The principle of this method is that a person involved in a particular case exactly for one minute, but day by day and in the same time. One minute of time - is quite small, so easily doable for any person. Lin did not get up on your way. The same actions that you would not perform for half an hour, coming up with excuses or justification, you can easily do by one minute [10, c. 216].

The author of this management concept is Masaaki Imai. He believes that “Kaizen” is the philosophy that can be applied equally well in business and in personal life. In the Japanese, word “Kaizen” means “continuous improvement.” Based on this strategy, in the process of improvement can be involved all from managers to workers, and its implementation requires relatively small investments. Kaizen philosophy assumes that the company should focus on permanent improvement. Therefore application of stated strategy is quite appropriate for innovative enterprises.

In western practice a flexible work schedule that allows employees to organize your life so that they could devote themselves to the company. Flexible schedule, experts say, is a mutually beneficial practice for both workers and for employers. Important to note that efficiency is generally not reduced, but increased. No wonder that half the firms in Europe are working by such schedule. With the reduction of working hours of the employee, emerging socio-psychological climate that allows more focus on the performance of their duties and not be distracted by other things.

The use of grid scheduling of market innovations (Fig. 2) can calculate its basic parameters on the basis of graphic construction and evaluation of the results of the project in time (GERT). The feature of this graph is the limited capacity of the customer (individual or company) of the control sequence phase of the market, but this does not prevent the exercise of market processes monitoring, detection and use of existing potential improvement of business results of the customer.

Figure 2 clearly traced parallel performance that significantly reduces the yield which confirms the importance of time and resources for its effective use.

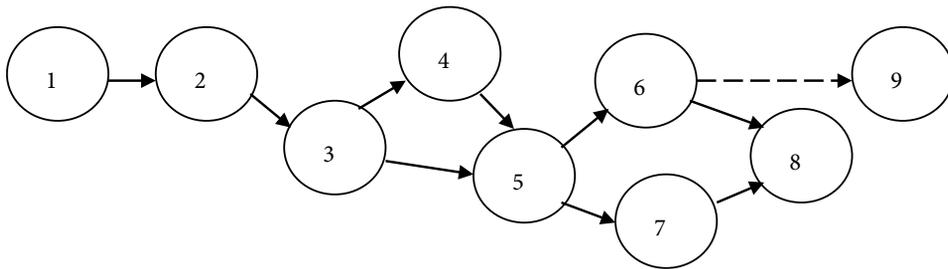


Figure. 2. Grid schedule of market innovation

Time Management is an event or training process of conscious control over the amount of time spent on specific activities which specifically increased efficiency and productivity. Time management can help, along with the skills, tools, and methods used in the implementation of specific objectives, projects and tasks. This set includes a wide range of activities, including: planning, distribution, setting goals, delegation, analysis of spent time, monitoring, organizing, making lists and prioritization. The control system over time is combination of processes, tools, techniques and methods.

Examples of effective use of time are virtual enterprises. They are completely focused on the customer as its main characteristics - speed of order fulfillment and completeness of customer satisfaction. As customers and performers are united in an open network, the boundaries between the interacting companies are vague and transparent. This structure is created by the information integration of resources partners. Thus, there is integration of cultures, traditions, resources, experience and knowledge of partner companies. There is

an artificial community, formed electronically, which often goes the life cycle of individual enterprise.

The purpose of the virtual enterprise is the rapid response to market demands and maximization of the degree of utilization of company's resources, not receiving the profit by maximizing customer satisfaction with the goods (services) in the traditional enterprise. Virtual enterprise increases the speed and quality of order execution by combining the resources of various partners in a single system. If traditional company for the development and launch of new product on the market requires attracting significant resources, virtual enterprise thankfully to informational and communicational ideology can much more quickly find new partners with relevant market needs resources, knowledge and abilities.

We can select the basic steps for time management on the enterprise [14, p. 13]:

- 1) clear statement of the objects;
- 2) planning for achieving them;
- 3) identification of perpetrators;
- 4) prioritization of tasks;
- 5) focus on performance of key tasks;
- 6) hard work on the implementation of tasks;
- 7) monitoring the achievement of goals.

Since the main factor on the enterprise is human capital, thus implementation of time management system necessary with considering personal time management:

- planning time should be regular, systematic and consistent;
- using flexible planning methods without rigid parameters of time, focus and respond to changing situations;
- no restriction in the rigid framework of the plan;
- fixing the results in writing;
- delegation of authority;
- performance only really important things (Pareto principle);
- limiting external distractions.

Examining time management in today's conditions, we can conclude that time management has undergone significant changes in forms and signs. Time management acquired the status of effective management of the enterprise as a whole and the individual in particular [15, c. 267].

Conclusion. Time management allows: quickly achieve its goals; have time to do all the important things; minimize "jobs involving all hands" at work; avoid "gaps" in the projects, tasks, etc; work only 40 hours for a week; pay more attention to your family; be highly organized and punctual person.

Importantly, along with other management tools, time management can work in difficult conditions of limited time without loss of quality of accepted decisions, can improve productivity and reduce time spent. Therefore, on the innovative enterprises this is a key element of success. Time management is one of the most profitable investments.

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