# MOTIVATION IN THE FIELD OF INFORMATIZATION

When planning and organizing any work, the Manager usually determines what exactly the organization should do, when, how, and who, in his opinion, should do it. If the choice of these decisions is made effectively, the Manager gets the opportunity to translate their decisions into action, applying in practice the basic principles of motivation. Therefore, motivation as the main function of management is associated with the process of inducing yourself (in this case – the head) and other people (subordinates) to a certain activity through the formation of motives for behavior to achieve personal goals and goals of the organization.

In management theory, this function is considered relative to the organization's personnel, which determines the object of motivation. It's either work and, then, **the motivation** is the promotion of an employee or group of employees to the goals of the enterprise through satisfaction of their own needs, or the man himself – an employee of the organization. Then, motivation is an internal state of the person associated with the needs that activates, stimulates and directs his actions to the goal**.**

Motivation makes a person's behavior purposeful. A goal, in the context of motivation, is something that can lead to the elimination of a person's state of need for something. Achieving the goal leads to a decrease or disappearance of tension. The main functions of motivation are:

 a call to action;  direction of activity;

 monitoring and maintaining behavior.

*A call to action.* A motive is something that makes a person act or is an incentive to act. In this sense, a person who is actively working to achieve a certain goal that will allow him to satisfy a need will be considered as motivated, and passive or inactive-as unmotivated or low-motivated.

*Direction of activity.* People are constantly making decisions about how they will achieve their goals. For example, an employee who wants to make a favorable impression on his Manager may choose different behaviors: work especially hard

on an important task, provide a service to the Manager or flatter him. All these actions have something in common – they are some choices that direct the efforts of a person to achieve a certain goal that allows you to meet the corresponding personal need.

*The control and maintenance* of behavior aimed at achieving a goal is expressed in a certain perseverance in achieving this goal. Motivation makes a person biased, interested. Therefore, a person, whose behavior is determined by monetary motivation, seeking to earn money, in different situations and under different circumstances will act in accordance with this dominant. The tasks set before him or the opportunities that open up, he will consider mainly from the point of view of the possibility of earning money.

Similar General reasoning can be attributed to the motivation of the organization in the direction of development of any activity. For example, the motivation for the development of a new type of business can serve as a revenue growth or strengthening of competitive positions.

Hence, the motivation of enterprise Informatization is a set of needs and motives that encourage the decision-maker to improve business performance through more effective use of information resources, the introduction of modern information technologies and information systems.

According to many foreign and domestic analysts and practitioners, Informatization as a special type of activity is a complex method of ensuring competitive and economic advantages of an enterprise.

On the one hand, it requires additional efforts on the part of management, labor collectives and individual employees of the enterprise, which are not peculiar to them in the so-called staff situation. At the same time, such additional costs of time, effort and resources are not compensated in any way, at least at the stage of initiating the introduction of automated information processing. This means that the top management of the company must create special motivators that provide some other, non-traditional incentives for the introduction and development of the information sphere.

On the other hand, automation of information processing by its nature leads to changes in the flow of production information, the relationship of employees and departments about the preparation, processing and transmission of information and, ultimately, inevitably complicates the organizational structure of the enterprise. As a result-an increase in the cost of maintaining the management system.

And, finally, the creation and development of the sphere of Informatization requires additional capital and current costs, which can be formed only at the expense of the main economic activity of the enterprise, i.e. by refusing to solve current production and social problems in favor of Informatization. At the same time, the impact of the introduction of modern IT and IS in the form of growth of financial indicators, firstly, is not always obvious and, secondly, is remote in time.

Thus, the development of the field of informatization as an independent type of enterprise activity requires special motivation. Moreover, the specificity is that motivation should be considered from two aspects:

1. motivation of the enterprise (enterprise management) to the development of the field of informatization;
2. motivation of performers to work in a developed area of informatization.

*Motivation* from the point of view of the economic activity of the enterprise is determined by the strengthening of the importance of information resources in achieving the ultimate goal of entrepreneurship - generating income and profit.

Information is one of the main, decisive factors, which determines the dynamics of the needs of society, the development of engineering and technology, the change in existing forces in the external environment, and much more, which in general forms the specific conditions for conducting a business. In this regard, it is very important to understand and determine the level and degree of influence of the informatization process on the sphere of enterprise management and human intellectual activity.

The most important feature of the organization’s management process is its informational nature. The implementation of management decisions is carried out through a system of methods for influencing employees using information on the progress in the implementation of previously adopted decisions (reverse information). The more accurate and objective the information at the disposal of the control system, the more fully it reflects the actual state and relationships in the control object, the more realistic the goals set and the measures aimed at achieving them are adequate.

Since the manager in his work, on the one hand, is based on information about the state of the object, and, on the other creates as a result of his activities a new command information for the purpose of transferring the managed object from the actual state to the desired one, the information circulating within the organization is conventionally considered both the subject and the product of managerial work.

Information as a control element and the subject of management work should provide a qualitative representation of the tasks and state of the managed, control systems, and ensure the development of ideal models of their desired state.

An important place in the understanding of such concepts as "information" and the mechanism of information processes in society and its institutions is the concept of the information environment, which is, on the one hand, conductor, transmitter and distributor of information and as a source of motives of human activity. In the course of his activity, a person actively interacts with the information environment, getting new personal knowledge from it, generating new knowledge and presenting it in the form of information that is placed in the information environment. A certain information environment in which it is immersed characterizes any economic entity. This information environment

reflects the level of development of the economic entity and defines certain principles of information behavior of people in communication with each other.

As already noted, the exceptional role of information in modern scientific and technological progress has led to the understanding of information as a resource as necessary and important as energy, raw materials, financial and other resources. Information has become a subject of sale, i.e. an information product.

As a commodity, information cannot be alienated like material products, but its purchase and sale has a conditional value. Passing to the buyer, it remains with the seller. In addition, it does not disappear in the process of consumption.

The formation and development of the information sector, the movement of many types of information as a commodity influenced the formation of a special market-the information market.

At present, the dissemination of information in the information sector of the economy is impossible to imagine without the use of new information technologies. The use of modern information technology provides an almost instant connection to any electronic information arrays (such as databases, electronic reference books and encyclopedias, various operational reports, analytical reviews, legislation and regulations, etc.) coming from international, regional and national information systems and use them for successful business.

Thus, information support is a part of the control system, which is a set of data about the actual and possible state of the controls and external conditions of the process, as well as the logic of changing and transforming the controls.

For effective management of information resources, organizations create (acquire) information systems. From this point of view information systems can be a source of competitive advantage for the organization.

*From an economic point of view,* IS can be seen as a means of production that, under certain conditions, can replace labor. Therefore, IS should lead to a decrease in the number of average managers and employees, performing huge amounts of routine work for them. Information technology also affects the effectiveness of interaction with the organization's customers, because it can reduce operating costs.

*The financial impact* of Information Systems is that the internal costs of maintaining the management system are relatively reduced. As the business expands and becomes more diverse, the organization's costs increase. By reducing the cost of acquiring and analyzing information, it enables organizations to reduce the company's management costs.

Special studies show that IS automatically transforms organizations, because they can change the hierarchy of decision-making, reducing the cost of acquiring information and expanding its use.

There is an increasing interdependence between business strategy, rules and procedures on the one hand, and information system software, hardware, databases and data transfer on the other. A change in one of these components often requires

changes in the other components. This relationship becomes critical when management is planned for the future.

Increasing the degree of integration the scope of the system and applications. If the technology in the organization has changed (for example, software), this change affects other components: there may be personnel changes, changes in working methods, changes in the structure of the organization.

IS can become powerful tools for creating more effective organizations through redesign, transforming their structure, scope, communication and management mechanisms for work, work processes, products and services. IS can give large and small organizations additional flexibility.

Information technology reorganizes the management process, providing powerful new opportunities to help managers in strategy, planning and management. For example, it has become possible to get information for managers about organizational performance up to the level of certain products from any organization at any time. The new intensity of information makes accurate planning, prediction, and control possible. By distributing information through electronic networks, a manager can effectively communicate with thousands of employees and even manage vast target groups.

Thus, the motivation of the enterprise in the development of the sphere of Informatization as an independent activity is determined by the fact that as the business develops, and at the same time the growth of business information, it is not possible to effectively manage without the use of modern IT and IS.

*Motivation of employees to switch to automated information processing*. At all times, managers understood that subordinates should be encouraged to work for the organization, and not just forced to follow orders and orders.

However, it is already necessary to take into account the fact that a modern educated worker will not work in an organization that does not meet his ideas about the attractiveness of labor. Therefore, the theory of motivation is mainly devoted to the creation of such motives as attractive work.

A motive is an incentive, an occasion for activity. Encourage enriching activities, ideas specify the amount of remuneration by linking it with the result of the activity, as well as identifying the system of human values, satisfying the need of power depending on a person's ability to influence other people.

Various theories of motivation are divided into two categories – *substantive and procedural*. Their difference consists in a different assessment of the significance of such basic concepts as needs and rewards.

*Needs are a conscious lack of something that triggers an urge to act.* Primary needs are laid down genetically, and secondary ones are developed in the course of knowledge and life experience. Needs cannot be directly observed or measured. Their existence can only be judged by the behavior of people. Needs are the motive for action*.*

*Reward* is something that can satisfy a need and that a person considers valuable. Managers use external rewards (cash payments, promotions) and internal rewards (a sense of success in achieving a goal) obtained through the work itself.

*Meaningful theories* of motivation focus primarily on identifying the needs that drive people to action. After that, ways to meet the dominant needs are developed, i.e. methods of remuneration.

*Procedural theories* look at motivation in a different way. They analyze how a person distributes efforts to achieve various goals and how to choose a specific type of behavior. Procedural theories do not dispute the existence of needs, but believe that not only they determine people’s behavior. According to procedural theories, the behavior of a person is also a function of his perception and expectations associated with a given situation, and the possible consequences of the chosen type of behavior.

A special place in the motivation of employees is occupied by the stimulation of labor. In general, *stimulation is a function associated with the process of activating the activities of people and labor collectives, aimed at improving the efficiency (effectiveness) of their work*. Incentives are used for moral and material incentives for employees, depending on the quality and quantity of work spent. It involves the creation of such conditions (additional remuneration), in which as a result of active work, the employee will work more efficiently and more productively, and then will receive for their work something more than it was agreed in advance.

Undoubtedly, incentives encourage people to work harder and better, but they alone are not enough for productive work. The system of incentives and motives should be based on a certain base-the normative level of labor activity. After all, the very fact that an employee enters into a specific employment relationship implies that he is ready to perform a certain range of duties for the agreed remuneration in advance. Anything outside of his regular duties requires purposeful stimulation.

The problem of motivating employees to implement and expand the sphere of information in the enterprise, first of all, is due to the fact that it forces them to engage in activities that are not related to the performance of their main production duties. Thus, the introduction of modern it and IP forces the employee:

 develop new areas of knowledge;  learn to handle new equipment;

 get used to new technologies for performing familiar operations;  to work in new conditions of transmission and distribution of

information, etc.

Thus, it is possible to allocate three directions of influence of OI on changes in the content of work caused by informatization of activity at this workplace.

*Centralization.* Some activities are separated from existing technological processes and structures and formalized into new units (for example, the correspondence service is centralized).

*Integration (reintegration).* With the help of it, functions are returned to the original complexes of tasks, meaningfully combined with them. Implementation of tasks in the form of their complexes can lead to complete dissolution or reduction of Central organizational units. At the same time, for the new IT, the "price/performance" ratio forms as a side condition a criterion for evaluating the effectiveness of the degree of decentralization. For work structures directly, this usually means horizontal or vertical expansion of the content of the work.

*The emergence of the effect of economy without the transfer of activities.* Thanks to the development of it in the workplace, the effect of rationalization is achieved (saving time, reducing the number of errors, etc.), it is also possible to reduce working time, i.e. increase productivity.

Thus, with the help of IT and IS, it is possible to have a corresponding impact on the structure and content of the enterprise's management tasks, and therefore on the content of the employees ' work itself. Hence, the problem arises: either to hire other workers who are already able to work in new conditions, or to further motivate and stimulate existing workers, so that they would successfully be adapted to the innovations caused by informatization.

When analyzing the impact of new IT on organizational structures, the following aspects of these technologies are primarily important.

* 1. Continuously improved telecommunications provide more and more effective integration of processing of various forms of information (text, numeric data, and graphic forms).
	2. This integration is supported by multi-functional tools (devices), the advantage of which is currently manifested, especially in large enterprises with a high level of communication.

Improving telecommunications provide:  faster communications;

 reducing the number of approvals (conferences);  reduce the need for devices (shared inputs/outputs);  reducing the level of division of labor;

 reducing the waiting time for a communications partner;  no need to convert information.

Due to the vertical integration of pre-existing and newly formed activities, additional degrees of freedom arise during the implementation of OI, which allow using new, additional opportunities. When used correctly, the following happens:  increased motivation and job satisfaction of employed workers due to greater freedom in making independent decisions in the workplace;

 become more Autonomous peripheral units, by increasing the level of independence in each workplace, they get more rights in decision-making;

 complex centralized management and control systems become unnecessary in some cases, which, in turn, requires increasing the level of initiative of all employees, increasing the desire for entrepreneurship, which, in turn, increases the flexibility of the system and its readiness for innovation.

It follows that with the introduction of informatization, the existing division of labor can be meaningfully and purposefully changed. This is the way from the traditional, operation-oriented division of labor to the object-oriented division, in which the focus is on the integrated holistic organization of labor. In turn, new approaches to the division of labor dictate the need to develop new methods of motivation and stimulation of staff, as well as other standards and norms as an information base of motivation.

The introduction of sufficiently powerful computers at the level of a single functional division of the enterprise or even a separate workplace leads, to a certain extent, to the rejection of centrally used large computers. Modern dialog programs contain enough opportunities to effectively adapt the technology to the characteristics of each specific end user. As a result, outdated organizational structures of the enterprise, as well as historical information flows, can be destroyed, and quite painlessly.

The first, oddly enough, fall under the developing new structuring in the field of OI themselves data processing units. Therefore, there should be a new distribution of responsibility for performing functions in the created infrastructure. The old centralized structures can no longer exist, but purely local solutions are unacceptable, because there is a danger of creating incompatible means. Therefore, in some cases, it is attractive to integrate OI under the guidance of an authoritative responsible specialist in Informatics-information Manager or IT Director.

The organization of such a new decentralized system depends on the need for communication tools and on the tasks of the employee, as well as on the adopted it strategy in the organization as a whole. The organizational design of the use of accepted basic it is also proportional to the organizational structure considered above in terms of the impact on the qualification requirements for personnel. The main prerequisite for their effective use is the understanding by end users of functional relationships and basic information processes occurring in OI systems.

Additional factors that arise when integrating or reintegrating tasks are also important. In this regard, the following three theses are discussed about the impact of the development of the sphere of Informatization on the qualification of the company's personnel:

 dequalification – the division of labor increases, formalized or standardized work is automated to an increasing extent, the intensity of mental labor and the corresponding requirements for the performer, due to this, are reduced;

 growth of skills–new technologies cause an increase in the mental load on the employee, freeing him from simple work, which, in turn, leads to an increase in the requirements for the user's skills;

 polarization – the small number of highly qualified jobs that arise when expanding the sphere of Informatization is opposed to a large number of other, low-skilled jobs.

However, it should be clear that rationalization and simplification of the management system, accompanied by centralization and specialization, can lead to a loss of flexibility. When changing the orientation of work in the field of OI, it should be taken into account that, in addition to material incentives, other motivational factors also affect the satisfaction of employees, which should be taken into account by managers. The productivity of an employee depends significantly on the degree of recognition of new technologies and structural changes.

#### Control over the use of computing resources

Despite the relatively low cost of modern elements of the technological environment of the sphere of Informatization, the total cost of computer systems in many enterprises is comparable to the cost of fixed assets (their active part), not to mention those enterprises where computer technology is productive equipment. In addition, as the development and dissemination of information tools, managers at different levels of enterprise management realize that IT and IS are not just a means to facilitate the implementation of computational procedures, but a powerful tool for developing and optimizing management decisions, which ultimately ensures the effectiveness of the organization. All this has led to the fact that the problem of rational use of computing resources and information resources is becoming more and more relevant.

Due to the specific nature of the functioning of computer systems and the sphere of Informatization in General, one of the most accessible and obvious ways to increase their impact is to intensify the use of either time or power, or both.

Speaking *about intensification of the use of computer systems and information resources in time* it should be borne in mind that the processes are discrete, as is required by the interaction man – machine. In addition, the speed of modern computers allows you to perform computational procedures in a very short time almost instantly, which means that the time of execution of one production task at one workplace is much shorter than the duration of the work shift set by the operating mode of the enterprise. Hence, the structure of the machine time Fund should be similar to discrete production (for example, in industry), but taking into account the peculiarities of the technological process of working with information

Baseline when analyzing the use of computer systems in time is *effective work time Fund* of the workplace (or working time), which is determined based on the number of working days in the calculation period (set by Government).The duration of the working shift or day and the shift coefficient of work of the enterprise (determined based on a Collective agreement of the enterprise). Working time is reduced by the amount of losses caused by the need for routine preventive repairs, diagnostics, tests, etc. These losses are justified, because they are associated with maintaining the elements of the technological environment in working condition.

Speaking about the intensification of the use of computer systems in time, it is necessary to allocate a share of useful machine time in the General Fund of working time. This is possible on the basis of the classification of working time costs, which allows you to analyze the feasibility of using working time in relation to the equipment, to the employee, to the production process of information processing in General.

In general, the working *time consists* of the time of useful work and the time of breaks. In turn, the execution time of useful work includes the time to complete the production task and time losses that are not caused by the technological process of information processing and the production task. The break time may be independent of the employee (the time required for data exchange, the waiting time associated with different performance of related hardware, etc.), and dependent on the employee (time for rest and personal needs, unreasonable absence from the workplace, late for work, etc.). The time to complete a production task includes the following elements:

 *preparatory and final time* (familiarization with the production task, preparation of primary information, establishing the interaction of all components of the technological process, safe disconnection of external technical devices at the end of their use, registration of work results at the end of the work shift, etc.);  *machine time* (execution of all technological operations related directly to the processing of information, in other words, the time of interaction "man- machine" when performing a production task);

 *auxiliary time* (connecting / disconnecting external devices during work, auxiliary manual operations, current testing, etc.);

 *maintenance time* (maintenance-elimination of various kinds of failures, switching from one technology to another, etc.) and organizational maintenance – convenient organization of the workplace);

Time losses that are not caused by a production task include:

 *self-service* (the time when an element of the technological complex is in a state of software maintenance or repair due to an unexpected failure);

 *reserve* – lack of demand for computing resources.

Each of the selected indicators can be the basis for evaluating the effectiveness of the use of computer systems. In this case, the level of intensity of their use is determined by the ratio of the time spent on the performance of the production task to the total amount of working time. This approach can be used to build basic relationships of various elements of working time and, further, when planning and evaluating the actual components of the effective time Fund for each computing unit and for the information-processing sphere of the enterprise as a whole. On this basis, options can be built strategies to reduce the unproductive costs of working time for all its individual components and in the aggregate.

As for *estimating the intensity* of use of computing resources by capacity, i.e. determining the amount of work (production) per unit of time, the solution of this problem encounters certain difficulties. In principle, a computer system can be

characterized by some achievable potential power that it can develop in a particular process. This can be done on the basis of information about the technical performance of individual elements, as well as in the process of special testing. However, this assessment will not be accurate, because it should be based not only on the total power of individual elements, but also taking into account the peculiarities of the organization of their interaction.

Since it is practically impossible to calculate the power (performance) of a computer complex by exact methods, it is necessary to use empirical methods. For example, you can collect statistics based on standard performance control procedures for a number of years and on the basis of regression dependencies to create experimental statistical standards. Another way is to conduct an experiment based on simulation of the computer system load in order to determine the limit parameters.

The obtained estimates can be taken as the initial values of the standards, and then in the process of monitoring and analyzing the parameters of the operation of a real computer system to improve the regulatory framework for managing the use of resources in the field of informatization of the enterprise.