INTRODUCTION OF INFORMATION SYSTEMS AT THE ENTERPRISES

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Realities of modern business are that that development of information technologies directly influences growth of business indicators of the enterprises. For example, e-mail introduction in tens times accelerated interaction processes, as between various firms, and their components. Emergence of the Internet at all generated such concept as «multinational corporation» in its modern value. So, it is possible to conclude that timely development of information technologies and inclusion them in the business processes opens a wide range of competitive opportunities. But introduction of new technologies often is impossible one by one and demands acceptance of the whole package of measures, the business processes directed on modernization (creation). In such cases speak about introduction at the enterprise of new information system. We will consider in more detail that the similar system and what factors represent can affect need of its emergence at the enterprise. [1]

For today the term "information system" is seldom applied in such look and CIS (corporate information system), especially is often replaced with an abbreviation if it is a question of the enterprises. What is such system? In this respect there are many opinions, but all of them meet that CIS is the open integrated automated system of the real time which main objective – implementation of automation of business processes of the company at all levels, including, and business processes of adoption of administrative decisions. Thus the scale of system can vary from several local computers with local OS to hundred users and thousands of units of equipment with specialized software. But whatever was scale, CIS has to answer a number of requirements:

- 1. Convenience of use (possibility of control of all information at the enterprise).
- 2. Reliability (high fault tolerance and degree of safety of information).
- 3. Information security (high level of information security by its transfer and storage).

Except the above requirements introduced CIS has to solve the whole range of tasks, otherwise it won't be effective.

- 1. Storage and information processing.
- 2. Data storage of different structure.
- 3. Analysis and forecast of information streams.
- 4. Research of ways of storage and submission of information to the person.
- 5. Information search implementation.
- 6. Creation of infrastructure of storage and data transmission.

Certainly, the system meeting all conditions will be quite volume, difficult and many resources, both technical and financial, and human will demand. Therefore the decision on integration of CIS at the enterprise is made only in case integration is proved. In turn justification is based on an assessment of already available system and the accounting of new requirements, or on the forecast in case creation of system starts from scratch. We will dwell upon the aspects obligatory to attention at decision-making on introduction of CIS at the enterprise and the subsequent problems at introduction.

1) Justification of need of introduction.

CIS as the tool in the sphere of business I got on the enterprises not at once, and slowly and gradually. The organizations come different ways to idea of introduction of CIS. Prerequisites to such decision can be as reorganization of production and hard-fought competitive battle, and a set of other reasons.

2) Constraining forces.

As well as the live organism, the enterprise reacts to any changes, both external, and internal. Extremely seldom changes are accepted without any resistance. But not always this resistance is caused by personal rejection of employees and heads or organizational difficulties which can make prevailing part from all problems at an introduction stage. Happens and so that there is no technical capability of modernization. It can include as backwardness of technical base (IT infrastructure), financial problems, and complexity or impossibility of adaptation of business processes existing at the enterprise.

3) Ways of overcoming of limiting factors

Any disputable situations need to be solved immediately as they directly influence the speed and quality of introduction of CIS. Especially it is unreasonable to stop after making decision on introduction and carrying out all preparatory procedures. But if technical and financial problems have the trivial decision in the form of increase in financing, work on overcoming of difficulties with the personnel has specific character as to different people manifestation of different (individual) approaches is required. Therefore besides providing new information and obvious or implicit coercion, very often resort to involvement of the resisting employees in introduction process, training in their new necessary skills or compensate them the suffered expenses from the carried-out changes (for example, payments to the reduced employees).

4) Introduction of CIS

Conditionally introduction break into four stages. At first preparation which means a formulation of the

forthcoming changes and the notification of all participants which this change will concern is carried out, and also the analysis of all limiting factors is carried out. Further the stage of so-called "defrosting" follows. It means preparation of the personnel for the future changes and development of the measures promoting without serious consequences to accept them all changes. Then the team of introduction carries out all planned changes according to available schedules. Then the stage «freezings» is urged to fix all made changes at the enterprise, thereby having returned CIS of the enterprise in a new stable state. It should be noted also that the above stages can repeat several times.

5) Assessment of results

Important aspect of the project of introduction is the assessment of results of the carried-out works which detailed analysis can give the answer to the nature of the arisen difficulties, and the got experience can be applied as at the same enterprise in case of new changes, and at the similar enterprises. [2]

We will consider possible barriers at introduction of new information system in enterprise work. For relief of perception they were broken into the integrated groups of "technological", "organizational" and "personal" barriers. Part of barriers which don't fall under one of these categories, were classified as «other» (table 1).

Table 1. Barriers at introduction and use of information systems

Barriers	Description of barriers
«Technological» barriers	 restrictions available computers and computer programs; high cost of computers and computer programs; insufficient formalization of management processes at the enterprise; need of change of technology process business.
«Organiza- tional» barriers	 absence of full understanding at heads of mechanisms of implementation of decisions and how performers work; counteraction of organizational culture to introduction of information system; lack of commitment of the top management to information system; need of reorganization of the enterprise in information system; need of formation of the qualified team of implementers.
«Personal» barriers	• resistance of workers and heads (because of fear before the unknown, needs for guarantees when under the threat there is own work-

	 place, etc.); lack of knowledge of information system among the personnel; absence at the subordinated skills of such work; unwillingness to perform additional work; counteraction of departments to sharing of data.
«Other» barriers	 counteraction of clients to information support; absence of duty regulations for subordinates in whom it is told nothing about need to carry out such types of works; imperfect systems of payment and remunerations which don't consider desire of people to be improved and promote organization development; the last negative experience connected with projects of changes.

It is possible to add that all problems arising at users of information system lead to decline in production of work and to constant mistakes by transfer and the analysis of information.

Development of modern technologies conduct to growth of complexity of introduced information systems which incorporate both technical novelties, and new trend and decisions in the business sphere. With confidence it is possible to tell that today presence of CIS at the enterprise is just necessary, differently the organization risks to lose competitiveness and it is simple to disappear. So, development of methodologies of introduction of information systems will develop in the near future rough rates.

References

- 1. Corporate information systems (CIS) Pie.Wiki [Electronic resource]. URL: http://wiki .mvtom.ru/index.php/Korporativnye_informatsionnye _sistemy _ % 28kis%29 (Date of the address: 15.09.2014).
- 2. Corporate information system (CIS) [Electronic resource]. URL: http://www.nslabs.ru/articles/? child_id=5 (Date of the address: 15.09.2014).
- 3. The main objectives of information systems IS IIstan.ru [Electronic resource]. URL: http://www.itstan.ru/it-i-is/osnovnye-zadachi-informacionnyh-sistem-is.html (Date of the address: 15.09.2014).
- 4. Problems of introduction of corporate information systems [Electronic resource]. URL: http://koet.syktsu.ru/vestnik/2005/2005-3/10.htm (Date of the address: 15.09.2014).