

The Efficient Implementation of ERP Systems in Business Praxis

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Abstract

This article provides a summary of recommendations for the effective implementation and exploitation of ERP systems in business praxis. It takes especial notice of the strategic and tactical decision-making phases in the pre-implementation phase and then goes on to evaluate the implementation phase itself separately. The recommendations set out in this article are based upon long-term qualitative research conducted into ERP implementation projects by the Center for investigations into Information Systems (CVIS).

Keywords Enterprise Resource Planning (ERP), Implementation Project, Strategic Management, Business Processes, Change Management, and Teamwork Strategy

1 Introduction

1.1 The Starting Points of Research

From the very inception of the Center for investigations into Information Systems (CVIS – further only CVIS), it has conducted research into ERP systems on behalf of its interested professional members and partners, and this has covered both the supply side as well as user organisations [1]. General bases for the ERP systems investigation, classification and efficient utilization are formed in pivotal monographic studies of Professors Jiri Voříšek [2] and Zdeněk Molnár [3] from the end of nineties, and in significant foreign studies of the renowned research companies such as Accenture [4] and Deloitte [5]. The last two cited works form, together with expert publications of T. H. Davenport [6], T. Stevens [7] and D. L. Olson [8,9], the base of the own ERP systems investigation [10].

1.2 Research Methodology

CVIS also devotes a substantial part of its research capacities into the realisation of qualitative questionnaires sent out to user organisations, which are then used to prepare case-studies. Investigations in the ERP field, forming an essence of the article, are of a nature of the **combination of mapping and causal**

research. Mapping research is aimed at helping the solver in orientation in the problems,

and in revealing still not clear connections. As parts of the mapping research, both the research in form of a written questioning on the side of suppliers, and structured dialogues with customers and suppliers, leading to the form of case studies, are included. Generally, a case study is recommended as a tool of systematic monitoring and analysis of ERP projects development [11].

The causal investigation part is aimed at clarifying of connections complexity; this is to indicate which reasons are causing a change. To verify these relations, in causal investigations, there were applied qualitative questioning techniques to strengthen its predicative ability [12,13].

A researching dialogue may be specified as a process aimed at **gaining information needed for understanding of certain problem area**, by means of purposively induced **interaction** between the questioner and respondent [11-13].

During the dialogues aimed at case studies processing, this approach is indispensable. This is just because of the fact that, from a content point of view, such dialogues are not held in the

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Czech enterprises, so one cannot learn based on already similar applied methodology, and the system of concepts and specified categories are not unified in the field. Therefore, it is necessary to combine the questionnaire standardized structure with a qualitative, partially non-standardized (deep) dialogue, based on which it would be possible to clear up how individuals interpret and construct certain facts.

As another reason of the application of the combination of standardized questionnaire with qualitative dialogue, the situations are considered when it may be expected in respondents (managers) that the discussed topic is both strategically and commercially sensitive and confidential to them. An impersonal questionnaire can then completely discourage a respondent from truthful answers, or will make him/her to adopt defensive attitudes (unambiguous formulations, concealment of facts, trying to undertake an initiative). The enterprise resource planning systems topic and attitudes of managers towards its true interpretation meet all of the above mentioned assumptions. During a qualitative dialogue, especially these following attitudes were applied from the side of the questioner (probes, questions):

- **Basic probe** – question repeating, re-formulation – in can be namely counted with the fact that some informants do not understand an asked question meaning exactly.
- **Discovering, clearing and developing probes** – should lead to clarifying of unambiguous answers and developing briefly spoken ideas.
- **Paraphrasing** – repeating the answer by a questioner, aimed at appropriate interpretation verification.
- **Gaining confidence** – an offer of a partner collaboration and ability of clarifying of planned discussions value and significance. As the gaining of confidence key factor, so called professional competence of the questioner is considered, not only from a viewpoint of IT, but also from a viewpoint of knowledge of the business problems and processes.
- **Providing of proposals** – suggestions of further thinking directions.

Managers are very busy and many of them underestimate the importance of investigation as the only theory, not serving to practical demands. The characterization of questioner useful attitudes should help in elimination of

risks and errors based on subjective ideas and expectations of a questioner. The main techniques of the qualitative dialogue conducting include critical case technique, “repertory grid” technique, projective dialogue technique, questioning and group dialogue, and the technique of cognitive questioning.

In respect to the investigation nature, at best the **projective dialogue technique** can be used, namely based on submitting of own ideas about implementation, operation and efficiency of the given solution, aimed at their modification, completion and development on the respondent side.

The following recommendations are based upon a detailed qualitative research investigation into 90 ERP projects in manufacturing and commercial organisations in the Czech and Slovak Republics, which were conducted by the Center for inVestigation Into Information Systems (CVIS) during the period between 2003 and 2009. The sample of those questioned is made up of managers who are/were responsible for the realisation and implementation of ERP projects.

2. Problems of Czech enterprises in the ERP projects realization

2.1 How and in which fields excessive costs are originating

During 2002 to 2007, the author was carrying out the inquiry in Czech production and trade organizations. 41 responsible managers answered the question of excessive costs origination. Their answers (without stating the succession) were as follows:

- Excessive costs bring too many additional modifications and servicing actions concerning the system. These are mostly given by insufficiently or wrongly specified requirements. They may, however, also be caused by the situation underestimation from the supplier side.
- Excessive costs are caused by solving of problems given by an unsuitable IS/ICT selection. The wrong selection reason most frequently lies in ignorance of the market and its offer. Also a pressure from the suppliers which act according to their short-term profit may have a negative impact.
- The costs are incurred also in case of the elimination of defects originated on the unsuitable system function covering. This is a cause (or, also, an impact) of the conception fragmentation, insufficient integration level, low flexibility, proposal influencing by users

or the organization management. As the main negative consequence, inconsistent and insufficiently available data is necessary to be taken into account.

- Costs are incurred also in case of solving objective user dissatisfaction with the information system, caused by the above mentioned factors.

2.2 People as a bottom line of successful engagement and operation of an ERP system

Similarly as in other enterprise areas, also in case of the ERP projects realization, the weakest article is formed by people. Namely, they are fallible, inattentive, they bring emotions into the rational designing activities, and they hardly understand presented data. People are entering the ERP project already prior to its factual commencement, and also in the implementation and kept operation stages. The separated stages are influenced by various groups of people, and their effects are mutually overlapping:

1. **Decision selection** – enterprise management or owner.
2. **System acquisition and selection of implementation partner** – enterprise management or owner, people from supplier and consulting firms.
3. **Implementation** – enterprise management, people from supplier and consulting firms, key users.
4. **Using and maintenance** – enterprise management, all users.

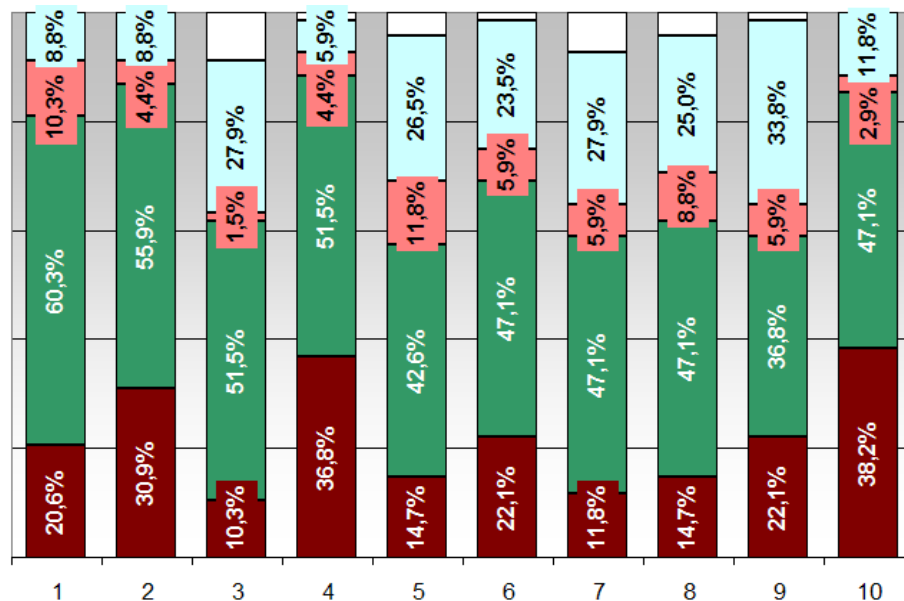
5. **Development, innovations and „retirement“** – enterprise management or owner, people from supplier and consulting companies, all users.

For a modern organization, also the influence of so called stakeholders is important – the influence of persons or institutions participating in the enterprise functioning and trading income, e.g. in terms of supplier chain. As the common interest of all stakeholders, a long-term enterprise performance should be considered, so also their impact on the IS/ICT application is unexceptionable.

People are acting as a critical factor for a whole period of the information system lifecycle. These are employees of all levels, which participate in the information system selection, implementation, operation and innovation, or control and influence the process directly, no matter if in a position of managers, or stakeholders.

In 2006 the CVIS performed an inquiry aimed at verification of experience with the ERP projects realization in the Czech enterprises. For the purpose, there were set ten critical factors that the author encountered most frequently during his interviews with the managers of Czech production and trade organizations during 2002 to 2006, and within his advisory and consultation activities:

1. Absence of enterprise and IT strategy,



Source: Petr Sodomka/CVIS 2006. The problems of Czech enterprises within solving of the ERP projects were evaluated by 68 respondents (2006) from responsible employees of the Czech ERP supplying enterprises (one respondent = a vendor enterprise responsible person.).

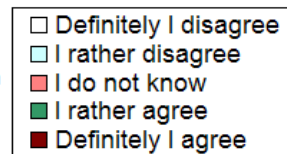


Fig. 1 Critical success factors during the ERP project implementation

- according to which the project could be implemented.
2. Inability of a correct formulating of the ERP project submission.
 3. Lack of employees qualified for the ERP project implementation.
 4. Effort for reaching the ERP project price as low as possible, at the expense of the solution quality.
 5. Inability of factual communication both with supplier and inside of the enterprise.
 6. Effort for transfer of the entire responsibility for the project to supplier.
 7. Implementation team defining and assignment of competencies.
 8. Technical readiness for the project solving, and wrong data quality.
 9. Lack of time for the ERP project implementation.
 10. Effort for saving costs for consulting services and training.

As shown in the Fig. 1, respondents mostly preferred the following critical factors: Absence of business and IT strategy, Inability of a correct formulating of the ERP project submission, Effort for reaching the ERP project price as low as possible, at the expense of the solution quality, and Effort for saving costs for consulting services and training.

The area of people acting on the IS/ICT efficiency is very broad and was described in detail in some literature resources [13, 20-22].

3 Recommendations for strategic and tactical decisions during pre-implementation stage

As the first and entirely fundamental assumption, an **active support of the ERP project management and sharing of strategic management intentions by all of the organisation employees** is considered. In case this necessary condition is fulfilled, only then the below mentioned recommendations can be followed.

3.1 First recommendation: Analyze the main operational problems

This recommendation is supported by the fact that the existing enterprise data processing infrastructure usually fails, namely especially in the following three areas:

1. Enterprise database is inconsistent, and the information system does not provide a unified truth version on all of its outputs. Difficulties are then usually increasing, especially in supplier-customer relations. However, highly critical errors in processing of the data from internal economic processes such as accounting, budgeting,

calculations or production management, may also accumulate. These are then endangering the own organisation essence.

2. Business processes, with which our organisation business “stands and falls”, demonstrate a low efficiency. Commission execution is delayed, decentralized purchase costs us too much money, businessmen are missing the mobile support in field, etc.
3. Enterprise management does not dispose of comprehensive information about separated functional or process areas within the company. Decisions are then made rather intuitively, based on a partial information and own historical experience.

3.2 Second recommendation: Do not start an unpremeditated ERP project

From the previous summary it is obvious that first it is needed to **identify and evaluate the key problems** on technological, processing and manager levels. Subsequently it is necessary to carry out the **risk analysis** and **determine suitable actions** in a manner that the company is still able to perform its activities and, simultaneously, is not made start an unprepared ERP project.

In similar situations, enterprises usually do not have acute problems with salary administration processing and accounting, even if they are running them using old-fashioned applications, not being further developed. These supporting processes are necessary to be conserved for a short time, in order to have them still functioning to the minimum necessary extent.

The implementation commencement based on an unpremeditated ERP project would cause the **risk of a significant damage origination. The sum of investment costs and operational and servicing costs, i.e. the total costs of ownership (TCO) of information system, engaged too early under these conditions, would likely highly exceed its benefits to the company businesses.**

In that case, not only the excessive costs bringing mistakes based on insufficiently performed analyses would menace, but also a direct damage in form of a “frustrate investment” could occur.

There are not a few organisations which had to repeat the information system implementation. This has many causes, from the own not being ready, inability to accord realization of more demanding projects within a single period of

time, through missing enterprise management support, to an unsuitably selected software solution and its supplier.

3.3 Third recommendation: Study possibilities of recent ERP systems

A major part of organisations finally succeeds in implementation of the ERP system with smaller or bigger problems, in order to provide processing of the everyday routine agenda (economy, human resources, etc.). However, if the enterprise management does not have the goals bigger than solving the actual problems on technological, processing and manager levels, then it is sure that its ERP investment will not be appraised efficiently. Implementation project maximization does not get along without two important factors. The first one is **the measure of the ERP system functionality „exploitation“**, using its ability of integration of processes and standardization of working methods. The second factor consists in **the ability of including the support of processes bringing the company a competitive advantage to the ERP core**. In case of an enterprise focused on the custom-made production this may deal with production advanced planning and scheduling (APS – Advanced Planning and Scheduling); in trade organisation this may be e.g. a detailed functionality in the field of sales activities automation (SFA – Sales Force Automation), or servicing area (CSS – Customer Service and Support).

Prior to the ERP system implementation commencement, it is therefore necessary to get acquainted with these products offer, their properties and functions which may be useful to the company. A wide scale of possibilities serve to that, such as independent and product conferences, expert journals, Internet sources and, of course, also references in the field of the company business.

3.4 Fourth recommendation: Extend the angle of view onto the strategic level

The whole-business strategy represents a summary of the key manager decisions, based on detailed analyses which are a base of the organisation strategic management. However, how to reflect these managerial decisions into the business process management, providing thus their efficient functioning? And, on contrary to that, how to provide a feedback from the business processes functioning, in order to ensure essential information for the management to make its decisions?

It is hard to find a better answer that that given **by means of the information system**. If we imagine the enterprise as a living organism, then the information system forms its heart, the information and communication infrastructure is responsible for its blood circulation, and data flow is its blood. The maximum appreciation of an investment into the ERP system thus assumes that the ERP will become the enterprise heart and main information and communication infrastructure. Then its engagement must be based on the **strategic intensions** (visions, mission and goals) and **performing of the strategic analysis**. The analysis must not lack the **assessment of external and internal factors** influencing the company business, **assessment of available resources, evaluation of competitive forces according to the Porter model**, and **defining of strategic business units (SBU)** [14].

3.5 Fifth recommendation: Perform the analysis of business processes

As indispensable steps antecedent to the ERP systems implementation, the procedural analysis and the organisation processes map preparation are necessary to be carried out. It applies that the process implementation is aimed at quality, for which a customer is willing to pay. Above all, it is therefore necessary to investigate especially the elementary process logic, namely using the following step sequence:

1. Decompose the processes into sub-processes and detailed procedure level, and verify their mutual cohesion.
2. Verify, in how many variants each process may function, and if it may be centralized from resources utilization point of view.
3. Eliminate activities without any added value.
4. Analyze the processes error rate, namely from a viewpoint of expended costs efficiency and the influence on made product value.
5. Specify each process information needs and verify, if the providing with the information system is suitable, and which innovation type comes into question.

3.6 Sixth recommendation: Make the information strategy

An information strategy embodies a long-term business focus in the field of information resources, services and technologies. It is aimed at realization of the organisation goals and

business processes, using information systems and technologies.

An information strategy creation is a continuous process including the three essential steps – **analysis and evaluation of the enterprise IS/ICT recent status, defining of the target status, and proposing of a procedure of achieving it.**

To us, the information strategy is a key resource defining a enterprise IS/ICT development. It is an important resource of an enquiry document elaboration, using which the enterprise is contacting suppliers. Furthermore, it defines the relations between IT projects and the other projects solved in the organisation (establishment of production lines, educational programs, projects of ISO norms implementation, etc.), and is therefore serving as a starting point for those who are solving these projects. It contains the conceptual data for the planning of IS/ICT investments, and, in total, it accelerates implementation projects solving.

3.7 Seventh recommendation: Apply change management tools, and act positively towards employees

An ERP system implementation represents a deep check on the existing firm functioning. This is a complex change influencing not only information processing and business processes management, but also customs of users, working techniques, and other aspects. Nevertheless, the management effort is aimed at a permanent positive acting on their colleagues, in order to convince them for changes. The management of projects of the ERP system implementation type can only be successful in case that it is based on a wider change management context. As standard tools, suitable to be used for an intended change management and modelling, the following ones can be mentioned: **Lewin model** and **Krueger Model of a Floating Glacier** [15,16].

In case the realized change is exclusively measured by the project triple-imperative (costs, content, time), then there is a big risk that the project will not be implemented successfully. Namely, there are people characterized by a natural resistance against any changes. The management should therefore respect the strength and interests of individual user groups and, at the same time, be able to influence their opinion in favour of the project implementation.

The first group is represented by **opponents**, which, in general, assume a negative attitude

concerning a change. The goal is to identify this group and neutralize its opinions and attitudes. Furthermore, it must be counted with so called **hidden opponents**, or, in other words, opportunists. Those are also assuming a negative attitude concerning a change, in spite of the fact that, on the outside, they manifest a support for its implementation. The target lies in making use of their opportunism to adapt to interests of all.

Another group consists in **promoters**. These are characterized by a positive general attitude towards a change. They are also well-disposed towards a change concerning them because they are able to use it in favour of them. Opinions and attitudes of the promoters are necessary to be used for acting on other groups. The last group is formed by so called **potential promoters**, assuming a positive general attitude towards a change. They are still not fully convinced about the planned change helpfulness. So it is suitable to focus on their ingratiatory.

As the above mentioned groups and their opinions are being formed within a long term in the enterprise, it is necessary to act gradually on the people, in small steps (evolutionally); this will remove barriers standing against the changes realization.

3.8 Eighth recommendation: Support the qualification growth and motivation of users

If the ERP system is understood as company heart, then users are forming its brain. If we give them technological means and methodological procedures, then their task will consist in the enterprise data processing. Step by step, the organisation information and knowledge base will be created by them, serving not only to the business process management and manager decision-making support, but, finally, also to increasing the efficiency and firm value. **Nevertheless, the firm efficiency is directly proportional the means expended for technologies and human resources development.** The „company brain“ is then necessary to be developed not only through increasing of their qualification, but also by creating of favourable working environment (the enterprise culture and the system of both financial and non-financial motivation). The ERP system is then in hands of educated and motivated people which may help in increasing the competitive strength, bringing thus the maximum appreciation of invested assets.

4 Recommendations for a successful realization of the implementation project

The above mentioned recommendations for important strategic and tactical decisions within the pre-implementation stage must be completed with the recommendations of the implementation stage which will lead to a quality-performed project and user problems treatment.

4.1 First recommendation: Respect the project triple-imperative

This recommendation says that on filling the project content and aims, costs and time schedule must always be kept in view; namely in the context of strategic and tactical decisions dealing with the change management [18-20]. All of these three components should be properly planned, namely including the **system of benefit assessment, defining of all types resources** (human, material, financial), **precise submission of works procedure, management milestones, terms and conditions of the project handover by supplier to customer.**

4.2 Second recommendation: Make use of the teamwork synergy

The teamwork synergic effect may be achieved only when the value of result of common people work exceeds the sum of values which would be achieved in case that all are working separately. The synergy then allows individual team members fully use all of sources, and realize the results that they would not achieve in any other case.

The implementation project is very demanding as for the profile knowledge of the people. Therefore, it is preferable to evaluate both potential executives and individual team members according to the so called hybrid careers [14] reflecting their knowledge and experience from the IT area and the field of the business processes and activities management. Not less important is also considering of the people moral-volitional characteristics and their communication skills. From work organisation point of view, there must not be left out **defining of individual employees competencies, establish-ment of their vices for case of an unexpected absence, and defining of communication links to line managers.**

4.3 Third recommendation: Respect that the implementation is running during the organisation operation

The above mentioned recommendation supposes coordination of the project goals with

the organisation goals; from this, the following should be derived:

- Solution priorities,
- Principles of business activities coordination in relation to the project,
- Specification of time and people capacities.

In the opposite case there may be supposed problems with a full engagement of employees into the project implementation, and their overloading, conflicts of project and line managers, and troubles with filling of all components of the project triple-imperative.

4.4 Fourth recommendation: Consider a change or innovation of the existing information system

Already in the beginning of the first „decision-making“ stage of the information system lifetime, it is necessary to decide about if the organisation needs a new system or if the existing one is sufficient. Nevertheless, the decision must be made based on the firm business and information strategy. It is of no sense to consider the information system innovation e.g. in case when it is obvious that the company is awaiting a merger or in case the enterprise is not successful in its market and will have to revalue its general strategy. Furthermore, it is necessary to carefully consider the status of IT, especially in enterprises with more branches, where many various IT solutions may exist concurrently, or if a qualitatively different business processes operation is present.

The decision-making stage should include a definition of the system requirements, characterization of benefits, and analysis of this decision impact on the organisation business.

An information system implementation is a very complicated process, characterized by many requirements, frequently antagonistic, a difficult controllability of a heterogeneous team of people (supplier firm consultants, programmers, key users, managers), with various abilities and characterizations. It must be counted with many unexpected obstructions and a maximum exploitation of all employees, usually working in more roles than in case of bigger organisations.

4.5 Fifth recommendation: Consider the choice of the implementation partner

Except the own IT solution, it is necessary to choose a suitable implementation partner (system supplier, system integrator), which is a very underestimated fact in practice. Also, it is necessary to consider utilization of the services

of some consulting companies, especially for the implementation phase.

In supplier and system selection, an important role is in practice played by references in the verticals, and often also by personal contacts of managers. However, still it applies that as the most suitable tool of the implementation partner selection, the selection procedure must be considered. For a better assessment of separated offers, it is advisable to let a supplier from the supplier group elaborate so called **initial study**.

4.6 Sixth recommendation: Comprehensively analyze the main aspects of the offers within the selection procedure

The above mentioned recommendation includes **the comparison of system functionalities, separated offers prices, levels of servicing, training and maintenance**. These aspects are necessary to be not only comprehensively analyzed, but also defined in terms of contractual relationships. Also, it is necessary to evaluate the return of the investment (ROI), assessment of expected benefits and metrics appropriated to their evaluation.

4.7 Seventh recommendation: Anticipate the faults originated on excessive costs

An information system implementation consists in the adaptation (customization) of the information system, or in its parameters setting (or adaptation, if this is a repeated solution) in a manner fitting the organisation requirements at best. During these operations, partial controlling actions are carried out, as well as the system separated stages testing, and data conversion is being prepared. Simultaneously, conflicts and changes taken place during the implementation are solved.

As ones of the most expensive activities within this stage, **the system customization and users training** are considered. The own training then influences also further development stages.

During the implementation, big requirements are put on keeping of the time schedule of the works, investment plan and working team organisation. It is therefore necessary to firmly specify the limit of the invested resources, as well as a detailed project plan. During operative tasks solving, excessive costs are frequently originated, based on faults and time losses. The key role is here played by the implementation team personal structure, the method of its management, and the organisation of works.

4.8 Eighth recommendation: Focus your attention on servicing

An efficient information system operation is, undoubtedly, influenced by its administration and maintenance. An every outage can have a negative (and sometimes even critical) impact on the business processes (e.g. not meeting a commission dispatch deadline). In an ideal case, the conditions of rendering services from the side of a supplier are contained in the SLA agreement (Service Level Agreement). The agreement defines a measurable level of the rendered services for a given contract filling. In case of a decrease under the agreed level, sanctions against the supplier follow. As measurable indicators, e.g. duration of the system outage, transaction volume, etc., can be considered.

4.9 Ninth recommendation: Allow for a future functionality development

Already soon after the ERP system implementation, further applications may be integrated into its core. They are aimed at a detailed covering of key processes, for a purpose of obtaining additional benefits. They can be engaged also because of the fact that the original system is not able to provide a needed functionality in a given area. Therefore, it is also needed to consider its future expansion already at the time of the system considering, or, possibly, its directness towards the applications supplied by competitors.

Within the innovating, one may focus on the analytical functionality supporting the top decision-making (static reporting, advanced enterprise data analyzes, comprehensive management concepts based on Balanced Scorecard), on the collaboration in a supplier chain (SCM), on support of electronic trading or customer relationship management (CRM). Within the information system expanding, the separated elements are frequently combined according to specific requirements (e.g. CRM functionality engagement including analytical support).

4.10 Tenth recommendation: Attend to the system users, and assess their satisfaction

A routine operation puts a lot of important requirements on users. Here the phrase applies that an information system is engaged as late as all of the users – starting from enterprise management and finishing with storekeepers at terminals – are able to correctly interpret and insert data into it without making mistakes. Information systems are intensive of permanent data accuracy; otherwise they provide wrong information. Users are finding out this very soon, they give over to trust the system, and establish

own „reserve systems or methods“. Therefore, the responsibility for data accuracy is on them. An each individual should know sufficiently the agenda that he/she has to operate by means of the information systems; and his/her actions consequences. To carry out this, there is necessary their permanent education and fighting against “the knowledge decline“. In the beginning, people may be well trained, but afterwards they are losing the obtained knowledge. A part of employees are leaving for other functions, or leave the company. Doing that, they are taking the precious know-how with them.

Problems with users that could be solved already in course of the implementation are often revealed within the system “sharp operation“. Therefore, even after the system handover for the operation, its subsequent support towards users must not be underestimated. Within the time intervals specified in advance (e.g. quarterly), it is suitable to verify the system functioning and, as needed, plan an additional training. As the sharp operation integral part, the assessment of the whole scale of the implementation realized benefits in comparison with plan, needs to be included. It is therefore suitable to evaluate the satisfaction of all groups of users as also this „soft“parameter is a very important indicator of the system benefits.

5 Conclusion

ERP systems are implemented in enterprises especially in order to replace the existing systems which are technologically incompatible, not integrated, old-fashioned, and with a low-quality; these are no more able to compete, they do not cover business processes efficiently, they are creating too high cost structure, and they are not sufficiently sensitive to solving of customer requirements.

To the industrial, trading and non-profit organisations, as well as to supplier enterprises, a successfully performed and efficient process of selection, implementation and operation of the enterprise resource planning system, means an unambiguous benefit. In fact, it is aimed at supporting of the functional strategies, and thus the whole-plant strategy, and achievement of the company long-term business goals [14]. Concretely, a successful ERP system engagement should manifest itself in increasing of customer organisation competitive strength in appropriate market segments, namely under an immediate influence of a higher flexibility, improved service quality level, increasing of logistics chain

functioning efficiency, cost saving e.g. in the personal field.

Indisputable benefits from successful implementations of IT projects are also originating to supplier organisations, both application producers, or system integrators and consulting institutions. They are providing them not only with a short-term profit from the implemented transactions and continuous flow of earnings from service fees. From a long-term point of view, there eventually decides a permanent custom and satisfaction of clients and increase of positive references, which finally means to them the same effect as in the organisations utilizing.

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