

ICT Project Management in Companies in Restructuring – Example of NIS

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Abstract—Implementation of ERP is a demanding process which can create large costs for the company in case of failure. Realization of such project in companies in restructuring is even more complex task because of changing of organization structure and redesign of business processes. The aim of this paper is to present the implementation process of SAP at Naftna Industrija Srbije.

Index Terms—SAP, project management, risks, organizational changes, ERP

1. INTRODUCTION

Project management is a complex task. Introduction of new information systems or modernization of the old ones could be a great financial investment for the company. Generally, the bigger the company is, greater are the investment and mismanagement, and a bad risk assessment could lead to failure in project implementation and losses (financial, organizational, in time). ICT IT software projects often 'fail' but the failure usually is not caused by technical reasons. More often, they fail because of reasons related to the management issues. Main reason of ERP's failure is implementation itself. Analysis of success or failure factors show that primarily it is the implementation's effect on organization, the workplace and the individuals at work which yields a positive or negative result.

The companies have great, often unrealistic expectations from the new information systems. It is often anticipated that ICT project will correct the failings of badly organized company. However, the bigger the company is, the greater is the possibility for the project to fail. This is the reason why ICT projects are sometimes the subjects of litigation, since the investments are big and the results could be worse than expected [1]. The project team, the suppliers, the customers and other stakeholders can all be a source of failure.

However, the most common reasons for project failure are rooted in the project management process itself [2], and the aligning of IT with organizational cultures. That is why it is very important to pay special attention to management of organizational changes and risk management.

Organizational Change Management (OCM) is one of the key factors for the project success. Mismanagement or the lack of change management poses a great risk for project realization. Therefore the interactivity of these two categories excludes independent analysis and observation [3]. Change of the corporate culture is the biggest challenge when compared to changes in business processes, organizational structure and elementary IT systems. The advantages of the introduction of modern technologies into business cannot be disputed and, at the first glance, they are completely understood and accepted by all employees. However, although the innovations improve and make savings in the business process, they generally always face some resistance. Each change of established (learned) way of doing business causes the silent resistance and obstruction from one part of the employees. Change causes the stir and the fears of losing the influence, power or even a job surface. The bigger the change is the greater are the fears (resistance).

Risk Management represents the effort of the management, information system designers and employees in charge of IS implementation to eliminate or minimize potential loss during this process with the use of certain methodologies. Systematic identification, analysis and approach to the risks contribute significantly to successful realization of the project. On the other hand, bad risk management or even complete lack of it can affect the different segments of company's business activity. Planning and activities connected to risk management should be an integral part of organization process management. ERP producers usually have well developed methodologies of risk management, but these solutions are general and should be adjusted for each particular use.

2. CHARACTERISTICS OF MYNIS PROJECT

MyNIS Project is implementation of SAP at Naftna Industrija Srbije (NIS). SAP is an ERP software product that integrates different functions in a business providing rich functionality in each of included business areas [4]. A big burden for successful project realization was a simultaneous commencement of the several complex processes:

- Company restructuring
- Reengineering of business processes
- Preparations for the privatization
- ERP implementation (mySAP project)

ERP software architecture should connect information flow between producer, logistics, finances and human resources within the company. ERP is a client/server based application i.e. ERP modules interact among themselves using centralized data basis and in that way create unique business surrounding [5]. The essence of ERP system is that the data are entered only once, in that way becoming available to all integrated modules without need to enter again particular application segments. If the company does not have stable organizational scheme and well defined document and business activities flow, then the implementation of ERP solution can be a problematic task. Disarray in company organization causes often changes in project demands as well as the development of the wrong software functions, which are «Top 10» software project risks that increase chances for failure [6]. NIS and SAP project team faced these problems at the very beginning of myNIS project.

Structure of NIS ICT Departments

The initial situation of the different business divisions of NIS can be characterized from an IT perspective as followed:

- IT Organization
 - No relationship between IT departments of different business divisions
 - IT departments act autonomously with different report lines
- IT Processes
 - Decentralized and not standardized
 - No IT Governance Model exists
- IT Landscape
 - Isolated applications and architecture
 - No network exists so far for linking the IT applications of the different business divisions

The implementation of SAP as an integrated software solution for all business divisions of NIS requires the transition of the existing IT departments into a new IT organizational model. This transition results in organizational changes and process changes for the IT.

To run integrated SAP systems by support of decentralized ICT Departments is inefficient and risk prone, so the main goal is to build new IT system [7].

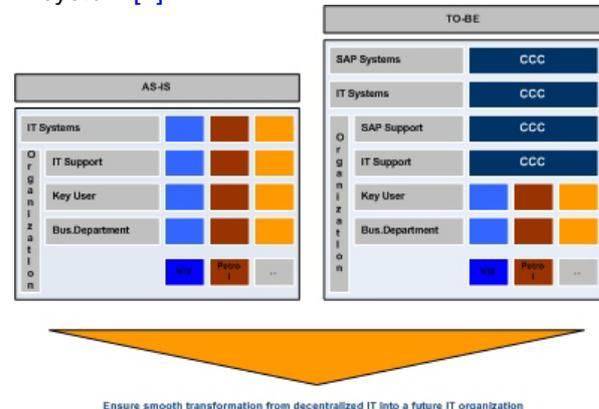


Figure 1: Transition of ICT department.

The overall **mission** of the NIS CCC (*Customer Competence Centre*) is to align the ICT activities to the business goals of NIS entities so that information technology enables NIS to build up competitive advantage and to boost the core business of NIS in a fast and secure manner.

Therefore the **strategy** for the NIS CCC is set up as follows:

1. The NIS CCC is a NIS internal service supplier, which supports and consults all NIS business entities in questions concerning the daily use and the future development of systems and applications.

Together with NIS business entities the NIS CCC wants to provide availability and stability of business critical systems and to ensure a controlled and continuous development according to the specific needs of NIS business.

2. Besides that the NIS CCC takes over the function to set up standards, guidelines and process harmonization for all ICT related activities.
3. The NIS CCC is the interface to the NIS business entities and to external partners like software and hardware vendors, service providers and consulting partners.

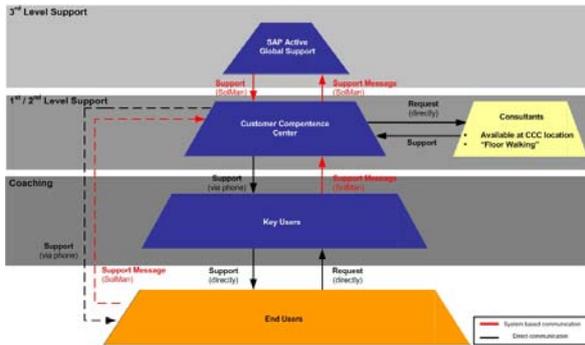


Figure 2: Go-Live Support Concept

Change management objectives

Change Management is the bridge from ‘old’ to ‘new’ and is one of the main success factors in SAP projects [8]. The NIS managers and employees affected by changes usually react with resistance. There can be various reasons for this, including a fear of too much transparency (“glass workplace”), or a fear of being made redundant, losing power or qualifications, or insecurities about working with the new technology. During the myNIS Project, Change Management (CM) focused to the following:

Objective 1: Create acceptance of the Aims for the myNIS Project

- The Change Manager supports, in order to convey knowledge to the end user, to make them able to understand their impact while they get changed.

Objective 2: Create willingness, build up trust, and decrease resistance

- By pointing out the benefit the Change Management Team (Change Manager, Change Management Core Team, and local Change Agents) wants to create acceptance

Objective 3: Create ability

- Work Out a common understanding of the system by coaching and training the end users.

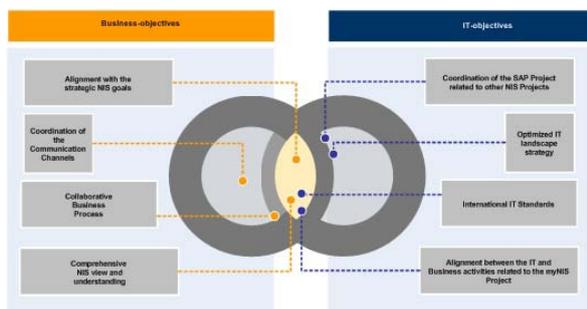


Figure 3: Change Management tasks [9]

There are numerous reasons for resisting change, some of these include:

- fear of loss of personal choice, information, power
- lack of awareness, competencies
- insufficient knowledge and / or information about the change
- lack of skills and / or abilities to operate in the new environment
- employees are unwilling to change
- political, social, strategic reasons

Risk management

The findings presented are based on three primary sources of information; the project information sheet, on site interviews with various key project stakeholders and project document study. The risk exposure for each review topic assessed is summarized in the following table:

Table 1: myNIS Project Review Dashboard

TOPIC AREA OF REVIEW RISK EXPOSURE LEVEL	Risk Exposure Level
Project Management	
Integration Management	High Risk
Scope Management	Medium Risk
Time Management	Medium Risk
Cost Management	Medium Risk
Communications Management	Medium Risk
Human Resource Management	High Risk
Quality Management	No Risk
Risk Management	<i>Low Risk</i>
Procurement Management	<i>Low Risk</i>
Functional and Technical Topics	
Business Organization and Process	Medium Risk
Organizational Change Management	<i>Low Risk</i>
End User Training and Documentation	No Risk
Technical – Systems Management	Medium Risk

Risks determined by analysis were stored in the risk data base. The influence of each identified risk was defined and the recommendation for their management was given.

Research results

After the Phase 1 (*Finance & Controlling, Basic Elements, Master Data, Human Resources Basics*) of the myNIS Project was finished, a survey among the key participants on the SAP and NIS side was conducted, using interview and questionnaire. The objective was to learn systematically from the experience in order to improve the effectiveness of the myNIS project [11].

Table 2: Phase 1 - Top answers

75 %	An efficient Governance was missing in terms of risk awareness, operative meetings, direct communication lines
69 %	Lessons Learned are a good idea
63 %	There was a good relationship and good cooperation between the teams
31 %	Sufficient SAP overview training was missing, to learn to be a key user and get confidence and self confidence of users
31 %	Too many role assignments within the project and other tasks in daily business
25 %	NIS counterparts displayed a total commitment to the project

Participants also agreed that the most troublesome issue was lack of the management support to the Project.

3. CONCLUSION

Beside the technical problems a great challenge for the project managers are the problems connected to the effects of organization transformation, because ERP introduction is not only implementation of the new software but it also comprises change in corporative culture and business activities through new or innovated business processes, change in model of organization as well as lines of reporting and communication. These problems are additionally increased when the company is in the process of restructuring during which a new organizational scheme is defined and business processes are redesigned. Due to inadequate organizational scheme of the company, in several cases NIS ICT department had a role of generator of the transformation instead of only being the support for the business activities.

A big burden for successful project realization was a simultaneous commencement of the several complex processes:

- Company restructuring
- Reengineering of business processes
- Preparations for the privatization
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Combination of these factors led to frequent team changes and the need to train new team members and to introduce them to the processes. Such situation generates delays in project realization and other problems.

Methodology and process structure applied in the myNIS project were done according to modified ASAP methodology. Key aspect of the implementation mySAP Business Suite solution in NIS is the integration of fairly autonomous entities of NIS into one, vertically integrated business system that led to need for the change in company's organization model and the need for consolidation and harmonization of business processes. This was not provisioned in the initial project content and consequently could not have the focus.

As a conclusion, it could be said that myNIS project has its shortcomings and that there were the problems due to unsolved system questions during the Phase 1. The greater part of these problems was solved thank to the competence and devotion of the project participants. This again confirms the presumption that people are the most important and the most influential resource of every project.

References

- [1] Barlas, D., "SAP sued by Waste Management", *The SearchSAP.com* Editorial Team, 2008. <http://sap.blogs.techtarget.com/2008/03/27/sap-sued-by-waste-management/>.
- [2] Dinsmore, P., Brewin, J., "The AMA handbook of project management", *Amacom (a division of American Management Association)*, USA, 2006, pp. 166.
- [3] Galorath, D., "Risk Management Success Factors", *PM World Today*, 2006., 8(12).
- [4] Williams, G., "Implementing SAP ERP Sales & Distribution", *The McGraw-Hill Companies*, USA, 2008., pp. 2.
- [5] Balaban, N., Ristić, Ž., Đurković, J., Trninić, J., "Informacioni sistemi u menadžmentu", *Savremena administracija*, Belgrade, Serbia, 2005.
- [6] Boehm, B., "Software Risk Management: Principles and Practices", *IEEE Software*, *IEEE*, 1991, 8(1), pp. 32-41
- [7] SAP AG, "Implementation of SAP at NIS", myNIS project, Novi Sad, Serbia, 2007.
- [8] SAP AG, "myNIS project Change management", Novi Sad, Serbia, 2008.
- [9] SAP Consulting, "Change Management Framework", myNIS project, Novi Sad, Serbia, 2006.
- [10] Trdlica, L., Larri, S., "SAP Project Management Review", myNIS Project, Novi Sad, Serbia, 2006.
- [11] "Lessons Learned Results", myNIS project, SAP AG, Novi Sad, Serbia, 2008.