Knowledge Transfer Procedures From Consultants to Users in ERP Implementations

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Abstract: This paper focuses on the issue of knowledge transfer from consultants to the final users of the ERP system during its implementation. For a long time, the knowledge transfer has been recognized as one of the key success factors of the implementation projects of any type. Basing on the literature, two alternative approaches to the knowledge transfer were identified: an exploration oriented one, assuming users' active participation in the implementation process and another one, i.e. instruction oriented knowledge transfer, depending on the users' training provided by the consultants after the implementation has been completed. A study of 10 ERP implementation projects is presented to determine how enterprises solve the knowledge transfer issue in real-life environment. At the end the paper presents the evaluation of the amount of external workload from the consultants needed to accomplish the knowledge transfer process with the use of the two alternative approaches. It is based on the field study in two comparable enterprises. The main value of the research is that it presents the generalization of the knowledge transfer procedures used in real-life ERP projects and then evaluates the difference in external workload from the consultants in a very unique situation of two very similar enterprises, with comparable business processes and information requirements, and which implemented the same ERP system with help of the same external consultants but using different knowledge transfer approach.

Keywords: knowledge transfer, ERP implementation, ERP expertise building

1. Introduction

Knowledge transfer, being one of the two core processes of knowledge management (Kumar and Ganesh, 2009) is also recognized as an important success factor in IT implementations (Gallivan, Spilter and Koufaris, 2005; Haines and Goodhue, 2003; Karlsen and Gottschalk, 2004). It should be carried out in two main directions: from the client to the third – party consultants, regarding business needs and processes the system should support, and from the consultants to the client, regarding the way the IT solution works, the latter being less explored in the literature (Ko et al., 2005). This paper concentrates on the knowledge transfer from consultants to users during the implementation of a specific IT solution – namely ERP system, presenting the ways this transfer can be carried out and discussing the impact of the knowledge transfer method chosen on the amount of the external work needed from the consultant to accomplish it.

2. Knowledge transfer in ERP systems implementation – literature overview

Knowledge transfer, together with knowledge creation are considered to be the two key processes of knowledge management (Ofek and Sarvary 2001). Kumar and Ganesh (2009) define the knowledge transfer as: 'a process of exchange of explicit or tacit knowledge between two agents, during which one agent purposefully receives and uses the knowledge provided by another. 'Agent' can be referred as to an individual, a team, an organizational unit, the organization itself or a cluster of organizations.' From the knowledge delivery perspective, the knowledge transfer can be classified into the following categories:

- Codification – when the knowledge transfer is based on documents, repositories and knowledge databases,

- Personalization – involving interaction between people (Child and Shumate, 2007; Bordia et al., 2006; Boh, 2007; Scheepers et al., 2004).

Another classification can be made according to the knowledge absorption approach criterion (Bostrom et. al., 1990):

- Exploration oriented - inductive, trial and error, high learner control, incomplete learning materials, relevant task focus,

- Instruction oriented - (deductive, programmed, low learner control, complete materials, features focus).

The literature overview made by Davis and Bostrom (1993) points out the exploration oriented approach as a more effective one.

During the implementation of any IT solution a knowledge on how it works has to be transferred to the end-users. This is also the case for ERP systems, being the example of a complex standard IT solution used by most organizations around the globe (Chen, 2001; Akkermans and Helden, 2002). The most common approach to the ERP system implementation involves a third-party implementation partner as a source of knowledge on the system to be implemented. In case of such implementation the knowledge transfer has to be done in two directions:

- From the client to third – party consultants, regarding business needs and processes the system should support – to assure that the system is designed and built according to the requirements of the client's organization,

- From the consultants to the client, regarding the way the IT solution works – to allow the future users carrying out their day-to-day activities in the new system.

Both directions of the knowledge transfer are equally important for the success of an ERP system implementation. If the consultants do not understand the business processes of the customer and requirements for the system, the result of the implementation will not satisfy the customer's organization needs and the entire project may fail. On the other hand, even a system perfectly fitting the requirements can be abandoned if the end-users are incapable to operate it.

That is why most authors, dealing with user training find it essential for successful IT system implementation (Gallivan, Spilter and Koufaris, 2005; Haines and Goodhue, 2003; Karlsen and Gottschalk, 2004; Mahapatra and Lai, 2005). Although this statement is treated almost axiomatic, the relationships between the amount of user training and performance outcomes are neither simple nor consistent (Gallivan, Spilter and Koufaris, 2005). The role of the knowledge transfer to end users is also sometimes underestimated by the clients. Haines and Goodhue (2003) state that only 5 of the 12 organizations included in the case study found the knowledge transfer crucial for a project success.

These findings should bring attention of IT researchers and practitioners to the way a user training is carried out. To be able to apply an optimal knowledge transfer procedure one has to be aware of what type of knowledge is to be transferred. Koskinen (2004) presents two classifications of knowledge:

- Tacit vs. explicit,

- Additive vs. substitutive.

The ways of transferring tacit and explicit knowledge was described in Hansen, Nohria and Tierney (1999). Tacit knowledge is based on personal experience and cannot be easily separated from the person that possesses it while explicit knowledge is easy to codify, store and transfer via mechanical media, such as books, databases or computer software. The type of knowledge which is supposed to be transferred determines to some extent the transfer methods. As the tacit knowledge is hard to codify, it would be rather transferred via personalization, whilst explicit knowledge can be transferred both by means of codification and personalization.

The second classification is based on the criteria, whether the new knowledge adds to the existing knowledge of a receiver or substitutes it with the new one. It determines the complexity of the knowledge transfer process and thus affects the methods that should be used. If the knowledge is additive, it is more likely that a receiver would be able to acquire it without any external help on the exploration basis but if he/she is faced with the need to replace the currently possessed knowledge with a completely new one, it is more likely that the help of external parties would be necessary.

Knowledge on the new IT solution is mostly explicit, as the way the system works can be codified and presented in the documentation. It is also substitutive as the knowledge on the old IT system has to be replaced with the knowledge on a new one.

As the knowledge on the operation of a new system can be codified in form of documentation, user manuals, on-line help, eLearning tutorials etc., it could be delivered to the end-users only in that codified form. However the complexity of the ERP solutions and substitutive characteristic of the knowledge on their operations makes it very difficult to absorb it only by self-study. The knowledge should rather be delivered with the use of mixed codification/personalization approach.

As it was mentioned above in this section, the new knowledge can be absorbed by the recipients with the use of exploration or instruction oriented approach.

The mix of approaches regarding the delivery and the absorption determines the knowledge transfer method. The possible knowledge transfer methods are depicted in table 1.

Table 1: Knowledge transfer methods

	Exploration	Instruction
Codification	Self study with the use of user manual	ELearning sessions
Personalization	Learning by doing the work together with the consultants	Workshops/formal training sessions

The question arises on the combination of the above methods which should be used to optimize the process of knowledge transfer from the consultants to the system users.

As it is seen in table 1 users can acquire knowledge about the new IT system in three main ways:

- By formal training during dedicated training sessions – either provided by a tutor or performed via eLearning tools,

- By self-study with the use of system documentation, on-line help and help provided by other users,

- By acquiring the knowledge from the consultants during the implementation process.

The first mentioned way of acquiring knowledge about the IT system follows the instruction oriented approach while the two remaining ones are exploration oriented.

Gallivan, Spilter and Koufaris (2005) found that formal training, although valuable, does not necessarily lead to better IT acceptance by the users. They state that informal help provided by more experienced users (lead users) is at least equally important as formal training, and as apart from assuring the knowledge transfer, it has a 'social influence' on the trainees. King (2005) found that communication and knowledge exchange between the key users and consultants is the crucial factor for the ERP implementation success.

Therefore, all three ways of transferring knowledge to the end-users are valuable. The question that arises is how they should be mixed together in order to attain the best outcome at the optimal cost. The appropriate mix of training methods should assure the proper outcome which is:

- User expertise in operating the system,

- User acceptance of a new solution,

- User ability to make on-going adjustments of the system configuration based on changing business needs of the organization.

The next sections present the study on the transfer procedures used in ERP implementations and evaluation of the external workload from the consultants, needed to complete this transfer.

3. Knowledge transfer procedures – a field study

The approaches to knowledge transfer during the ERP system implementation were examined in 10 SAP implementation projects. The participant observation was selected as a primary research method, followed by the examination of the source documentation of the project, i.e. offers, contracts, project management minutes and consultants' activity reports. The author of this paper participated in the projects under examination as a member of consulting teams, having no influence on the knowledge transfer approaches that were adopted.

The projects were executed in the enterprises from different industries and led by consulting enterprises of different size and origin. The information on the specificity of clients and consulting organizations is shown in table 2.

The projects 1 – 4 were supported by local branches of large international IT consulting companies. Two of them followed the SAP implementation methodology, whilst the third one used its own. The difference between the above mentioned methodologies consisted in the documents' layout and naming, however, division of the project into phases and the product list was consistent with SAP ASAP guidelines. Projects 5 – 10 were carried out in cooperation with the local IT consulting

enterprises and both of them performed the implementation according to the general guidelines of ASAP.

Table 2: Characteristics of the clients and consulting organizations

Project No	Client organization	Consulting organization
1	Financial sector organization	Large international consultancy 1
2	Telecommunication services supplier 1	Large international consultancy 2
3	Telecommunication services supplier 2	Large international consultancy 2
4	Chemicals dealer	Large international consultancy 3
5	Energy supplier	Small local consultancy
6	Mining enterprise	Large local consultancy
7	Shipping company	Large local consultancy
8	Chemicals producer 1	Large local consultancy
9	Chemicals producer 2	Large local consultancy
10	Chemicals producer 3	Large local consultancy

According to ASAP methodology the project consists of five phases, each of them resulting in the delivery of the following main products (Ehie and Madsen, 2005):

- **Project preparation –** resulting in the preparation of Project Charter which contains project mission, scope, schedule, structure, communication procedures, document layouts and general technical architecture. The knowledge product for the customer in this phase is the initial training for key users;

- **Business blueprint** – which results in the preparation of the Business blueprint, containing the design of the future system and being the only knowledge product of this phase;

- **Realization** – the main product of which is the configured and tested system. The knowledge products of this phase are the system documentation and user manuals;

- **Final preparation** – which results in the system ready to run and trained users as the main knowledge product;

- **Go-live and support**.

The knowledge products in the projects under examination were consistent with the above list but the approach to achieving them differed from project to project. It is reflected in Table 3.

The Project Preparation phase did not differ in any of the 10 projects. The Project Charter document was prepared in cooperation between the Project Managers of the client and consulting company and the initial training was carried out by consultants. Similarly the Business Blueprint phase looked alike in all the projects. The Business Blueprint was prepared in cooperation between consultants and key users. In this phase the knowledge transfer takes place in both directions. The users explain to the consultants the way the enterprise operates and articulate their requirements of 'what the new system should be'. The consultants describe the users how their requirements will be reflected in the system and write it down in the form of a Business Blueprint document. Worth of mentioning is the fact that, as the system is not ready for any kind of presentation, it is very difficult for the users to understand fully how the business processes is going to be reflected in the system.

The first differences occur during the Realization phase. In six projects the configuration was carried out solely by the consultants, while in the other four projects, obligations were split between the consultants and key users. In these projects, basic configuration was completed by the consultants, whilst the configuration steps, , subject to more frequent changes during the system use, were carried out by the key users. Obviously, it required the knowledge transfer from the consultants to the users so that they were capable of carrying out the required configuration work.

Additional knowledge products of this phase are the system documentation and user manuals. System documentation is a technical document describing the system configuration and in all but one of the projects it was completed by the consultants. In one of the projects (no. 10) the users requested the possibility to update of the system documentation in steps which were performed by them. User manuals, on the other hand, explain how the system works from the business perspective. In all the projects, in which the key users carried out a part of the configuration work, they also developed the user manuals under supervision of the consultants. Also in one of the projects (no. 9), where the

configuration work was provided solely by the consultants, the key users were involved in the user manuals' development. In the other projects this step was carried out by the consultants.

Table 3: Approach to knowledge transfer

Project phase:	Project preparation		Business blueprint	Realization				Final preparation		Go live and support	
Product:	Project Charter	Initial training	Business blueprint	System configuration	Documentation	User manuals	Testing	End user training	Go-live and after go-live support	Knowledge transfer approach
1	Project managers	Consultants	Consultants + Key users	Consultants	Consultants	Consultants	Key users with substantial help of consultants	Consultants	Consultants	Instructive
2	Project managers	Consultants	Consultants + Key users	Consultants	Consultants	Consultants	Key users with substantial help of consultants	Consultants	Consultants	Instructive
3	Project managers	Consultants	Consultants + Key users	Consultants	Consultants	Consultants	Key users with substantial help of consultants	Consultants	Consultants	Instructive
4	Project managers	Consultants	Consultants + Key users	Consultants	Consultants	Consultants	Key users with substantial help of consultants	Consultants	Consultants	Instructive
5	Project managers	Consultants	Consultants + Key users	Basic configuration done by consultants, repetitive configuration steps done by key users under consultants supervision	Consultants	Key users with help of consultants	Key users under supervision of consultants	Key users under supervision of consultants	Key users + consultants	Participative
6	Project managers	Consultants	Consultants + Key users	Basic configuration done by consultants, repetitive configuration steps done by key users under consultants supervision	Consultants	Key users with help of consultants	Key users under supervision of consultants	Key users	Key users + consultants	Highly Participative
7	Project managers	Consultants	Consultants + Key users	Consultants	Consultants	Consultants	Consultants under supervision of key users	Consultants	Consultants	Highly instructive
8	Project managers	Consultants	Consultants + Key users	Consultants	Consultants	Consultants	Consultants under supervision of key users	Consultants	Consultants	Highly instructive
9	Project managers	Consultants	Consultants + Key users	Consultants	Consultants	Key users with help of consultants	Key users under supervision of consultants	Key users under supervision of consultants	Key users + consultants	Mixed
10	Project managers	Consultants	Consultants + Key users	Basic configuration done by	Consultants and key users	Key users with help of consultants	Key users under supervision of	Key users	Key users + consultants	Highly participative

The work distribution in the Final Preparation phase is a consequence of the users' participation in the preceding steps of the implementation project. In this phase the system has to be tested, identified errors must be corrected and the end-users must be provided with a training. All consulting enterprises examined in this study insisted on the tests by the users as they were the final recipients of the systems. However, the knowledge about the system differed from project to project due to the users' involvement in the preceding phases which affected the work distribution during the testing. In projects no. 1 – 4 the tests were carried out by the key users with substantial help provided by the consultants. Consultants were presenting the functionality to be tested and then the key users repeated the same steps by themselves. So the testing was, in fact, combined with the training of the key users. In projects 7 and 8 even more work was assigned to the consultants as the key users were not eager to perform the tests. So the tests were carried out in a form of a presentation made by the consultants in front of the users.

In two of the projects (5 and 9) the tests were carried out by the key users but they requested the consultants' help. The reasons were different in each of the cases: in the project no. 5 the users were not sure of their knowledge, although objectively, they were able to carry out the tests by themselves. In the project no. 9 the users actively involved themselves in the project after the implementation phase, and thus, they had some knowledge gaps which had to be covered by the consultants.

In the projects no. 6 and 10 the key users had enough knowledge and were confident enough to perform the tests by themselves, under occasional supervision of the consultants.

The work distribution during the end-users training is a consequence of the preceding steps. In all the projects, which the key-users did not participate in actively, the end-user trainings had to be provided by the consultants. In projects no. 5 and 9 the key-users provided the training but they requested the supervision of the consultants while in projects no. 6 and 10 the key users had enough knowledge and were confident enough to run the training sessions by themselves.

Summarizing the above study, the following pattern can be observed regarding the knowledge transfer from consultants to the key users:

- In three out of ten projects the knowledge was gradually transferred from the consultants to the key users during the project. The key factor was the users' participation in the project works, starting from the Realization phase. The key users were gradually taking over more and more responsibility for the creation of the knowledge products as their understanding of the system operations was growing.

- In six projects the knowledge transfer during the project was limited due to a little participation of the key users in the project works. All the knowledge products were developed by the consultants and the role of the key-users was limited to the supervision of their work.

- In a one project a mixed approach was observed: the key-users did not participate in the configuration of the system but they started to absorb the knowledge when developing the user manuals and they tried to follow the scheme depicted in point 1 starting from that phase of the project.

The above evidence show that the knowledge transfer during ERP implementation can be based on two alternative approaches:

- Exploration oriented knowledge transfer, involving the users in the implementation process

- Instruction oriented, assuming a passive attitude of the users to the implementation and the knowledge transfer process.

The approach to knowledge transfer did not depend on a type of a consulting organization leading the project. In all the projects under examination the consulting organizations suggested the exploration oriented approach, however, the customers preferred the instruction based approach.

The following sections present the two transfer procedures and their evaluation in regard to the consultants' workload required to complete the knowledge transfer to the users.

4. Exploration oriented knowledge transfer procedure

First of the two knowledge transfer procedures that was observed during the study was the exploration oriented one. It was chosen by four out of ten examined enterprises and three of them followed the below procedure:

- Initial key-users training – workshops,

- Knowledge transfer from consultants to the key-users during the implementation:

- *Participation of the key users in the configuration works,*

- *Preparation of the user manuals by the key users,*

- System testing by the key users,

- Preparation and training carried out by the key-users for the end-users.

- On-going support and knowledge transfer from the key-users to the end-uses after system has been launched.

The above procedure assumes the identification of the two user groups:

- Key-users – responsible for the knowledge absorption, actively participating in the implementation and operating as the first level of support after go-life,

- End-users – carrying out the limited number of the operations in the system and not actively participating in the implementation.

The first group constitutes the implementation team together with the external consultants. It supports the implementation works not only during the business-processes' analysis, requirements gathering and system planning (which, obviously being the crucial success factor for the implementation success is not the subject of this paper), but also during the configuration, testing and go-life phases of the project.

This knowledge transfer procedure requires active participation of the key users during all phases of the project and in return offers gradual gaining of expertise in the system operations which results in trained key-users at the system start.

5. Instruction oriented knowledge transfer procedure

Alternative knowledge transfer procedure, is based on the instruction oriented knowledge transfer paradigm. It was chosen by 6 out of 10 examined enterprises. It assumes minimal involvement of the users in the implementation process and consists of the following steps:

- Initial key-users training – workshops,

- Implementation done solely by the consultants

- Preparation of the user manuals by the consultants,

- System testing by the consultants, key users act only as an approval body,

- Preparation and execution of the end-users training by the consultants.

- On-going support and knowledge transfer from the consultants to key-users and the end-users after a system go-life phase.

In the above procedure the division of the users into key- and end-users has a different meaning than in the exploration based knowledge transfer presented in the previous paragraph. Key-users constitute a part of the implementation team but their role is only to transfer the knowledge concerning the enterprise to the consultants, formulate the requirements and they are supposed to supervise and approve the work of the consultants. End-users do not take part in the implementation works at all and start working with the system when it is successfully launched.

All operations during the implementation are carried out solely by the external consultants and the knowledge transfer to the users takes place only during the training sessions after the system is ready and during the after go-life support.

One of the critical parameters that have to be taken into consideration by decision-makers while choosing the knowledge transfer method is the amount of the workload required from the consultants. It will be examined in form of a field study of the ERP system implementation carried out in the two branches of the chemicals industry company. One of them used the exploration oriented and the second one – the instruction oriented approach to the knowledge transfer.

6. Impact of the knowledge transfer method on consultants' workload

The following field study describes the implementation of a single functional area of the SAP system in two companies within the same holding (companies 8 and 10). The two companies were established during the restructuring process of a state-owned enterprise, which was divided into smaller entities, each of them dealing with a single product line. Therefore, The business field of both enterprises is very similar as they deal with the same production and distribution processes of similar products. Although both enterprises constitute a part of the same holding, their managers were authorized to shape the implementation process of an ERP suite independently. The similarity of the

business processes carried out in both enterprises and the fact that they implemented the same ERP system (SAP) with support provided by the same external consultants makes the two cases comparable by means of the ERP system scope and architecture and consequently, knowledge to be transferred.

The research question was: **What is the difference in the amount of consultants' workload to transfer the same knowledge with the use of exploration and instruction oriented approaches**. The data was collected with use of the direct observation method, as the author participated in the project. Analysis of the documentation with the emphasize on consultants' activity reports was used as the supportive data collection method.

The dependent variable in the study is the amount of consultants' workload required to complete the knowledge transfer to the users.

The amount of knowledge to be transferred is the same in both cases (the same ERP system, the same functional area, the same implementation scope, very similar business processes reflected in the system) and thus, it does not affect the dependent variable.

The independent variable, which caused the differences in the consultants' workload, is the knowledge transfer strategy.

In addition to the above quantitative research, the qualitative analysis of the factors that affected the selection of the knowledge transfer method will be presented.

The first enterprise, the largest one from among the companies in the holding, followed the exploration oriented knowledge transfer methodology described above in this paper. As the idea of implementing the ERP system was raised by the managers of this enterprise and it was the main sponsor of the project, the motivation to get it right was very large. The managers formed highly motivated implementation teams in each of the business areas involved in the project and assigned a very high priority on the project success. The members of the board of directors actively participated in the project operations (one of them was nominated as the project leader) which enhanced the motivation of the implementation teams and the project priority.

After the initial trainings, the aim of which for the key-users was to familiarize with the basics of the system, the implementation team was set up. The members of the implementation team actively participated in all phases of the project. They transferred the knowledge on the business processes to the consultants, developed some parts of the system business blueprint and then, together with the consultants, evolved the configuration. After the knowledge transfer, during the configuration phase, the key-users were able to prepare and perform the tests of the system by themselves. They also developed the user-guides and carried out end-users' trainings without the consultants. Their familiarity with the system was so good, that neither assistance during the system go-life, nor any follow-up consulting were required after the system start-up. Thus, the enterprise's additional knowledge transfer external costs equaled to zero. The members of the implementation team also managed to deal with their daily duties and no overtime was paid, so no measurable internal costs appeared in the enterprise. Obviously, the team members paid some costs in form of stress, high pressure and work overload during the implementation process.

The second enterprise showed less commitment to the implementation. One of the main reasons of this situation was that the managers of this enterprise regarded the project as something imposed by the holding company. Contrary to the first enterprise, the board of directors did not participate in the project. The project leader was not a member of the board and thus, he had not power enough to assign a high priority to this project and had no relevant tools to motivate the implementation teams. The second reason was that the enterprise was a new entity and it had more serious problems concerning the day-to-day operations than the implementation of a new IT solution. The members of the implementation team claimed they had no time to participate in the project and delegated the work to the consultants. During the business process analysis the most frequent answer was: 'do it as it was done in the other enterprise'. So the business blueprint was actually copied from the first enterprise and the entire configuration was rolled out without the participation of the key-users. As an effect, during the final tests some of the key-users were not able to log into the system without the

help of the consultants. Neither were they able to develop the user-guides nor carry out the trainings to the end-users.

All of the above enumerated tasks were carried out by the consultants. After the system start the key users were not able to perform the daily activities in the system and needed additional assistance provided by the consultants.

The summary of the additional consultants' workload during the project is shown in table 4.

Table 4: Additional consultants' workload

Activity	Workload (in man-days)
Preparation of user-guides	2
End-user training	2,5
After go-life assistance	7
TOTAL	11,5

All remaining implementation tasks took 34.5 days. The use of instruction oriented rather than exploration oriented knowledge transfer in the second enterprise raised the implementation external workload and consequently, costs by 33 %. If the business blueprint had not been carried out at the roll-out stage, the workload would be approximately 45 days. The workload and cost increase due to the instruction oriented knowledge transfer would then be 25% of the budget.

Furthermore, the key-users of the second enterprise were much worse prepared to work with the system and to implement any changes (even simple ones) in the configuration. Any simple change in the configuration would involve consultants whereas the key-users in the first enterprise are capable of maintaining the system on their own.

7. Discussion and conclusions

The examination of the knowledge transfer procedures in 10 ERP implementation projects has revealed that enterprises choose one of the following options:

- Exploration oriented – requiring users' active participation in all phases of the project and gradual knowledge transfer from consultants to the users during day-to-day project work,

- Instruction oriented – depending on the formal trainings sessions provided by the consultants and not requiring users' active participation in the project activities.

The results of the in-depth analysis of two projects with similar scope proved that the choice of the knowledge transfer approach may significantly influence the project external workload and thus, costs. In order to transfer the same quantity of knowledge, the enterprise which have chosen the instruction oriented approach had to use at least 25% more external consulting work compared to the second one, using the exploration oriented approach. The largest quantity of work regarded the after go-life support, which means that the users of the system were not trained enough to use it by themselves. As it was previously represented, the research presented in this paper focused only on the external workload/cost of the project. The use of the exploration oriented approach to the knowledge transfer requires much more user involvement and thus, it may cause work overload, additional stress and frustration of the employees. This may affect the quality of the day-to-day work of the employees involved in the project and cause some indirect consequences in terms of a company's performance. The above issue requires further research. So does the motivation of companies to choose the instruction oriented approach to knowledge transfer despite it is not recommended by the consultancies.

8. Summary

This paper discussed the phenomenon of knowledge transfer from consultants to the users during ERP implementation. As it is one of the key factors of implementation success, the knowledge transfer procedures should be carefully planned and carried out.

The examination of ten implementation projects revealed that majority of the enterprises included in the study have chosen the instruction oriented knowledge transfer approach, although the consulting enterprises insisted on using the exploration oriented one. Further investigation of the two similar ERP implementations resulted in the conclusion that this choice may increase the external workload

needed to accomplish the project by 25%. The results of this study should make the enterprises planning carrying out of an implementation project to take this fact into consideration while preparing the project schedules and budgets.

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