# Evaluating the Application of Learning Requirements Planning

# Model in the ERP Project of Esfahan Steel Company

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**Abstract**

It seems that inappropriate application and implementation of Enterprise Resource Planning (ERP) can harm performance of organizations. For the ERP to be successful there is a necessity for a systematic training plan aligned with the organizational master plan. The model of Learning Requirements Planning (LRP) is developed for linking training with the implementation process of ERP. The aim of this article is to investigate and evaluate the application of LRP model in the ERP project of Esfahan Steel Company as the pioneer in the steel industry of Iran. This research is survey based. The research population includes the employees involved in the implementation of ERP. The results imply that at the time of implementing the project, the required training has not been effective and since the accomplishment of the project, learning has not been continuous. Consequently, in the implementation of the ERP project of Esfahan Steel Company, learning has not been treated effectively.

**Keywords:** Enterprise Resource Planning, Learning Requirements Planning, Model

## 1. Introduction

Enterprise Resource Planning (ERP) system is a set of business applications or modules that connects various units in an organization with a common base for the flow of information in the form of an integrated system (Beheshti, 2006).

ERP programs integrate the firm's data and systems into one package and provide best business practices, integration of information across manufacturing, financial, and human resources operations (Lindley et al., 2008). Most ERP systems are based on software packages from companies like SAP or Oracle. ERP implementation is generally cost intensive and takes several months or years (Seidel and Back, 2009).

Currently, the use of this system is increasingly demanded in organizations (Al-Mashari, 2003; Huang et al., 2004a; Huang et al., 2004b). Unfortunately, the success rate of ERP implementation is very low.  This is addressed by a majority of authors who have reported up to 90 percent failure rate (Zabjek et al., 2009). The high rate of failure of such projects together with the disability of organizations in having no access to the given targets, are the major challenges that many managers are facing. In this respect, a number of studies are carried out on decision making of the selection of ERP considering its competitive advantage and its important business applications (Lengnick-Hall et al., 2004; Prahalad and Krishnan, 1999; Holland and Light, 1999; Davenport, 1998). Some of the main factors leading to the success of ERP include support from top managers, effective management of the project, continuous and effective training of users and having a look at ERP as a business solution. On the other hand, factors such as inadequate technological planning and user training, spending more time and money beyond what is planned and no access to enough skill for implementation of the project are the reasons for the failure of such projects (Deloitte, 1999; Sumner, 2000; Umble and Umble, 2002; Wright and Wright, 2002).

There is a long list of companies that have problems in the implementation of ERP including Dell computers, Hershi Foods, Apple computers, Whirlpool, etc. Of course this happens with the fact that hundreds or thousands of million dollars are spent on the training of employees. It is important to note that most of the learning plans of ERP (in case they exist) are either not planned or based on a wrong ground. In the training sessions, the people have not realized their responsibilities and new roles and the emphasis is put on technical training and not integrity. However, the result of not having learning plan for the implementation leads to project fail. Managers of organizations do not need step by step technical training, but need to understand the principles of the flow of information in business (Kapp et al., 2001). In most of the companies, an increase in the cost of implementation of ERP (in relation to its prediction) has caused limitation in training and reengineering of processes (Willis and Willis–Brown, 2002).

The results of an investigation entitled "To Investigate the Success and Failure Factors of ERP Implementation within Malaysian Small and Medium Enterprises", which was conducted by Noudoostbeni et al. in the University of Malaya in Kuala Lumpur, show that the two most important failure factors in implementing ERP in Malaysian SMEs are 'poor planning or poor management' and 'inappropriate training methods' and the most important success factors are 'Implementing team's teamwork and composition' and ' Effective training of users'. This implies that teamwork is a key success factor in Malaysian SMEs and also training is of vital importance. As a result, the success of ERP in SMEs in Malaysia is guaranteed by a sound investment and effective training and failure to do so will lead to a defeat for ERP in Malaysian settings (Noudoostbeni et al., 2009).

In a study entitled "Success, failure, and improvement of the projects of Information Systems in developing countries" conducted by Richard Heeks in 2002 at the institute of management and political development in the university of Manchester, the model of ITPOSMO was introduced which helps to identify the gaps between the processes defined and the realities in Information Systems and proposes some solutions for decreasing the gaps and consequently the success of Information Systems. One of the solutions presented is the suitable training of the employees (Heeks, 2002).

In another investigation entitled "factors influencing success and failure of implementation of Information Systems", which was carried out by Buruncuk and Gülser (2004) in Information Systems department of the University of Bugacity in Istanbul, a model was presented for determining factors affecting success and failure of the implementation of Information Systems. Factors like adequate technical and managerial skills, enough training of team members and employees were enumerated as the influential factors in the success of Information Systems.

In a study entitled "proposing a framework for the evaluation of the readiness of the Iranian organizations for ERP implementation", which was conducted by Banijamali et al. (2005), it was concluded that ERP has more values of managerial and organizational aspects rather than technical aspects and more emphasis was put on managerial and organizational aspects can decrease the risk of failure in the implementation of the system in the organization. In this study, it was recommended that the managers of Iranian organizations should realize organizational factors and have a precise evaluation of their organizational readiness prior to the implementation of ERP and should consider seriously the strategic-organizational and tactical-organizational.

In an article entitled "feasibility study of the preparation for reception of ERP II in Iran" by Eshraghnia Jahromi et al. (2005), it was emphasized that ERP is very expensive and complex; its implementation needs a schedule based on a specific approach; its instructional period is long and is conducted in some stages. More important is that the project should be treated the best practice, which contains the most ideal international models of business. This in turn facilitates the adoption of such models and has the capacity of changing organizational structure and processes for the ideal model of ERP.

Organizational learning and its related issues are important and are addressed in organizational studies, particularly in the ERP projects. In a case study in Hershi Food Industry, producer of chocolate and sweet in North America, in the late summer of 1999, the lack of systematic training of employers and managers in the implementation of ERP caused loss of market share and consequently, a decline of %19 in the company revenues. (Kapp et al., 2001).

Considering the above addressed investigations and the importance of users training in the Information Systems projects and also with respect to the fact that at the time of conducting this research, Esfahan Steel Company was the only available large company with an ongoing ERP project, the subject of learning is evaluated based on Learning Requirements Planning (LRP) model. Therefore, the main aim of this research is to address how much attention is paid to learning through the application of LRP model in the ERP project of the Esfahan Steel Company. For this purpose, in the following the subject of ERP is briefly introduced together with a detailed demonstration of the LRP model. Then, the research methodology is explained followed by a case study and finally, the findings are analyzed, discussed and the research limitations and suggestions are addressed.

## 2. ERP

This is an organizational business strategy that integrates the whole functions and duties of an organization (in the form of a set of software systems) in the light of information technology based on an integrated best practice in order to be

compatible with almost all of the requirements of the system in different departments and put the resources of organization in the hands of different managers rapidly, accurately and qualitatively. It also assists them in the process of improving the quality of planning processes and decision making.

The ERP implementation at the Esfahan Steel Company has been based on the Application Implementation Methodology (AIM) which is developed by Oracle. This methodology covers six phases of implementation as:

1) Definition:

The steps for guiding the project through the implementation are defined.

2) Operations Analysis:

The existing processes and practices are analyzed for understanding the customers and business.

3) Solution Design:

Process solutions are created by matching application features with business requirements, which are identified during the Operations Analysis phase.

4) Build:

Detailed technical architecture that supports the Oracle Applications is defined.

5) Transition:

All of the implementation elements must be put together for a successful transition of production system to go live.

6) Production:

This phase includes all of the support activities of the production system, and also includes some specific post-production tasks.

**3. LRP Model**

This model is used as an integrated process for the implementation of ERP or any other considerable changes in organization which is based on technology and links training with the implementation processes of ERP. This model was proposed by Kapp et al. (2001). Kapp is a trainer, researcher, consultant, and expert of learning, technology and manufacturing. William Latham, the colleague of Kapp is a world famous trainer and lecturer, and management consultant with a myriad of past records in implementation and supporting systems of ERP and MRP II. Hester Ford Latham, another colleague of Kapp is the manager of this project in Boing and the one who started organizational training management project.

LRP blends ERP-developed formulas and techniques with a macro level version of the basic instructional design model. LRP is an explosion of corporate strategic goals into discrete, measurable ERP training and implementation objectives combined with proven feedback methods and systematic analysis. With LRP, the ERP implementation initiatives within a company are tied directly to corporate strategic direction, articulated throughout the organization, delivered efficiently, and evaluated for constant improvement (Kapp et al., 2001). Figure 1 shows the steps of this model, which contains some tasks in each of the steps.

The first step in the LRP model is a careful analysis and development of strategic learning objectives based upon the strategic objectives of the organization. The diagnosis step involves the gross-to-net logic of determining what skills and competencies the organization already possesses and what is needed to effectively implement the ERP system. The next step in the process is the design of the instruction. This process involves determining the best method of delivering the instruction in terms of sequencing the information, presentation of the information, and distributing the information to the learners. Implementation step involves utilizing the LRP process to effectively implement the ERP system. LRP is not a one-time event. It is a continuous process. The purpose of an ERP system is to apply a consistent set of standards throughout the organization. Understanding how to develop a systematic method for continuation of the ERP process and how to transfer the process to other areas help an organization to achieve a strategic advantage (Kapp et al., 2001).

**4. Relationship between ERP Learning and ERP Success**

The influence of knowledge and learning on ERP projects is addressed in a number of investigations. Dezdar and Sulaiman (2009) conducted an investigation and addressed ERP team composition, competence and compensation as one of CSFs in the implementation of ERP projects. Finney and Corbette (2007) Also emphasized on training and job redesign as well as project team as most important critical success factors in the implementation of ERP. Soja (2008) found that employee education leads to increased employee skill level and organizational culture. As Plaza and Rohlf (2008) stated, it seems that extensive training, knowledge transfer, and proper project management are identified in the literature as the critical success factors for any ERP implementation.

In particular, LRP provides a learning architecture upon which to base an ERP system and its implementation. It is a

framework for teaching employees about the integrated nature of the organization and how to optimize that integration. LRP teaches employees to use the knowledge within the ERP system to make informed, intelligent, and effective decisions on a daily basis and it ensures that those decisions are tied to the strategic goals of the organization. Understanding the LRP process will help employees to solve common implementation training problems and to achieve rewards from a successful ERP implementation.

The implementation process is difficult. Project team requires a guidebook to assist them through the implementation process. The more educated the project team, the higher the likelihood of a successful ERP implementation. The LRP process not only could solve ERP implementation and training problems, but also, it will help managers to implement the project on time and on budget, which in turn leads to profit. In addition, LRP enhances the knowledge of employees and they could benefit from it when discussion with management and external consultants.

According to Kapp et al. (2001), LRP approaches organizational adoption of the ERP system from three sides and the interplay of the sides will lead to success in the implementation of the project. As it is illustrated in Figure 2, each side is dependent upon the others and as it is highlighted, "effective implementation team" is addressed as one of the key players. An effective project team must be assembled and empowered to make the implementation happen. Considering other sides of the triangle, it is important to note that the implementation team needs to understand the different rates of adoption and how to utilize techniques to accelerate the technology adoption process.

The implementation team responsible for diffusing the ERP system into the organization is typically unaware of the process by which innovations are adopted by a group. Awareness and proper management of the adoption process increases the likelihood that the ERP system will be adopted and utilized by the entire organization. The two key elements of the diffusion process that must be understood by the implementation team are the attributes of innovations that make them attractive to individuals and, secondly, the different types of employees within the manufacturing organization and their tendencies to accept technology and to pass on innovations to others.

## 5. Research Methodology

In this research, the LRP phases are developed regarding the ERP implementation as follows (Figure 3):

1) The analysis phase of LRP model at the "pre-implementation of ERP project" phase;

2) The Diagnosis, Design, Implementation, and Evaluation phases of LRP model at the "during implementation of ERP project" phase, which should be done by the AIM methodology; and

3) The Continuation phase of LRP model at the "post implementation of ERP project" phase to support the ERP project.

This research is survey based. Esfahan Steel Company as study is the only large available company that started to implement ERP in 2003. At the time of conducting this research, this project was in the supporting phase. Thus, the representatives of the operational unit, the authorities of this project (Systems and IT department), and managers and experts involved in the project form the research population including 70 respondents. Among the population, a sample of 16 persons is selected based on some specific criteria to respond to the questionnaire. The criteria are addressed by the company experts as familiarity with the system, engagement in the project, honesty in responding to the questionnaire, amount of knowledge, and availability. In the ERP project of the Esfahan Steel Company, five modules are implemented as financial affairs, supply chain management, production planning, human resources management, and maintenance (which are compatible with the Oracle e-business suit modules) and the research population includes at least one person for every module. The research questionnaire is a standard questionnaire available in the model of LRP with closed answer questions.

Because of time limitation of respondents and difficulty of coordination of group meetings, separate sessions are conducted for every respondent in which, questions are explained and the respondents answer the questions. The questionnaire provides the basis to answer the major questions of this research as:

1) How much attention is paid to learning in the ERP project by Esfahan Steel Company?

2) At the time of ERP implementation, is the organization in a good learning condition?

3) Are the required trainings effective during the implementation period?

4) Has there been continuous learning and training after the implementation of this project and until conducting this research?

## 6. Case Study and Analysis

Esfahan Steel Company is one of the largest mother industries in Iran and the first producer of steel products in the country. It has approximately 8000 personnel and also, an equal number of contractors (all together 16 000 personnel). Since Esfahan Steel Company is considered as a pioneer in the implementation of ERP, this company is selected as the case study of this research. The software package for the implementation of ERP is Oracle E-Business Suit which is under the authority of Oracle Company. As it was mentioned earlier, the application modules which have been localized

and implemented in this project include financial affairs, supply chain management, production planning, human resources management, and maintenance.

Figure 4 shows the percentage of the tasks done in relation to the whole tasks in the LRP model in of the ERP project in Esfahan Steel Company. According to the data, it seems that learning has not received due attention in the project.

The working conditions are classified in to three states as pre, during and post implementation of the project and therefore, the questionnaire is designed in three forms, respectively. The average of the answers to questions is calculated with respect to the three stages and is addressed in Tables 1, 2 and 3. Each of the items in the Tables include sub items. Total number of sub items is 134. For example, the first item, i.e. "General Tasks" has two sub items as 1) explained the need for careful analysis of the organization to top managers and 2) conveyed importance of the analysis step to all employees. Each of the sub items are asked by the 16 respondents based on a five scale with a total of 100 (i.e. 20 as very low, 40 as low, 60 as moderate, 80 as high and 100 as very high). Therefore, the values addressed in the Tables denote the average values of the sub items.

It is important to note that general tasks that include the explanation of the need for careful analysis of the organization for top managers and employees are not done as needed in this project. This might be due to the insufficient knowledge on the subject and lack of awareness about its importance in the success of such projects.

In the bill of learning (BOL), strategic objectives are broken into learning objectives, which are independent and measurable for a set of special skills and its provision process guarantees that learning objectives are fully in line with organizational strategies. The low average value of BOL (0.07) denotes the fact that such list is not provided for this project which in turn is an outcome of inadequate awareness of the important role of learning and its compatibility with strategic objectives of the organization.

From the average value of Table 1 (0.40), it can be concluded that the organization has not been in a good situation for learning at the beginning of the implementation of this project.

Table 2 presents the average value of groups of tasks which should be done based on the LRP model during the implementation of ERP.

ERP system will be used by employees who guarantee the success of such projects. For the preparation of the staff in order to learn and effectively cooperate with the project members, it must be made sure that they do not encounter physical or mental problems which may be related to the ERP project. However, learning seems important, particularly with respect to the Maslow's hierarchy of needs. Learning style is an effective subject and developing different training methods based on learning strategies could decrease the amount of time needed for learning. It also could increase efficiency and consequently is cost effective in organization. In the project under study, due to the lack of consideration of effective and productive training and learning, learning styles have not been introduced to managers and staff. This is why their learning styles are neither addressed nor evaluated and as a result, different training instructions do not exist for different learning styles.

It is highly recommended to the members of the project teams to understand each others' behavior, thinking styles and communicative skills, which require appropriate training and allocating time, before implementing large and complex tasks of the project. However, in this project, having no knowledge about this issue has caused inattention to preparation of suitable team training.

There are different approaches to launch ERP, each of which has advantages and disadvantages and the organization can choose a suitable approach to be compatible with its needs. Then it could be put into action effectively.

The lack of scientific and organizational studies for the implementation of the current project has caused unclear prioritization and compatibility of the selected approach with the organizational needs.

Another important subject is the effectiveness of training, which must be evaluated. In this project due to the lack of definition and structure for such evaluation, the effectiveness of the trainings if existed has not been clear. Moreover, considering average values addressed in Table 2, it can be argued that during the implementation of the ERP project, the importance of the role of users is not taken into account and the required trainings have not been effective.

Table 3 presents the average value of the groups of tasks that must be done based on LRP model, after the implementation of ERP.

Since return of investment takes a long run in ERP, the LRP process must be continuous in order to guarantee the efficiency of ERP in the short and long terms. A mechanism must be established in the organization to develop employees' skills in relation to ERP.

Understanding of a systematic approach for continuation of the process of learning requirements planning and its transformation in to information technology will assist organization towards achieving strategic advantage. Some of the key factors in continuous planning include Chief Learning Officer (CLO) and master learning plan. These help to plan

formal and informal events of learning programs effectively. Moreover, when the rewards are directly related to the employees' efficiency, they are more eager and willing to work effectively. The latter important factors have not existed in the organization under study.

One of the most important factors in the development and sustainability of an organization in the complicated business environment of today is learning capability. Peter Senge (1990) recommends five disciplines for moving toward a learning organization. His five disciplines together with the model of LRP can be used in evaluation of movement towards a learning organization. Considering the average values of such tasks, the evaluated organization has not had progress towards a learning organization.

According to the average values in Table 3, it can be concluded that the required continuous learning has not been conducted after the implementation of the project.

## 7. Discussion and Conclusions

In this article, the subject of learning was evaluated based on Learning Requirements Planning (LRP) model in the ERP project of the Esfahan Steel Company. The results of the investigation are as follows:

-       At the moment of the implementation of this project, the organization was not in a good learning condition. While implementing the project the required learning has not been effective and the learning required after the implementation of the project and until the time of this investigation has not been continuous. Therefore it is concluded that in this project, enough attention has not paid to learning and the importance of the role of the users has not been taken into account.

-       Although at the moment of the implementation of this project, system thinking has been the center of considerations in the organization, it has not been used in the organization. There also has not been any identification and analysis of the strengths, weaknesses, opportunities, and threats in the organization for the implementation of ERP, thus the decisions for the implementation of ERP have not been accurate and appropriate. In this project, there has not been any evaluation of the implementation approaches as well as their advantages and disadvantages. Hence it is not clear whether the selected approach has been compatible with the needs of the organization and has had an advantage over the other approaches. Consequently, there is a clear lack of knowledge in the organization for the implementation of ERP.

-       It is important to note that learning is addressed in the employee job description and required conditions for adequate and effective training have been available prior to the implementation of ERP in the organization. But, for this project, there has not been any Chief Learning Officer (CLO) and master learning plan and therefore, learning objectives have not been defined. Additionally, learning styles have not been introduced or evaluated and as a result, there have not been various training instructions for different learning styles. Structured evaluation (for an evaluation of training) has not been available and no criteria have been defined for evaluating the results of training programs and the amount of their influence. On the other hand, considering the readiness and willingness of users for working with ERP, while running the project, this issue has not been measured in the Esfahan Steel Company. Therefore, the appropriateness of the approaches and performed learning events together with the continuous improvement in training approaches is not clear. Since the return on investment of training has not been evaluated, it can be argued that there has not been any sensitivity towards the cost of training and because of inattention to the importance of learning and training, the costs has been increased and there appears some rework in the project.

-       The employees involved in the project have not been identified with respect to the technology adoption continuum, although most of the representatives of the operational units have agreed on the system and have assisted in the implementation of the project effectively.   In addition, the opinion leaders have not been designated in this project. These issues influence the speed of adopting the ERP system in the organization and cause increase in costs. Training has not been done for the implementation team. Also, no action has been taken regarding soft skills that include problem-solving techniques, analysis, decision making and other skills of people which are all necessary for improving the implementation of ERP and this, in turn, does not motivate individuals' creativity in confronting special problems and consequently more time and money will be wasted.

-       In the time of supporting the project, allocating resources has been done suitably but its efficiency has not been clear. Also, a continuous planning for sustaining ERP (as a dynamic system) has not been available in the organization until the time this investigation. Thus, it is concluded that according to the fifth discipline of Peter Senge and the results achieved from the application of the LRP model, apparently the studied organization has not moved towards a learning organization.

There have also been some limitations in this research, some of which are as follows:

-       Considering the available resources, it seems there has not been any similar model to the model of LRP and this makes it difficult to have a comprehensive evaluation of the effects of learning and training in the successful

implementation of ERP.

- Considering the fact that the respondents were involved in the implementation of the project and with respect to the differences of their demographic characteristics, there might be ambiguity in the gathered data.

Considering the results of this investigation, the following subjects are recommended for an effective implementation of ERP:

- The role of the ERP users must be acknowledged as an important critical success factor in the success of the project in all of the phases of planning, implementation, and supporting. Since learning plays a leading role in the success of ERP projects, the use of LRP model is suggested for the success of such projects. Also prior to the implementation of ERP, the required knowledge in every departments and dimensions of organization should be ensured.

- The need for ERP is realized based on the strategic objectives and also the weaknesses and strengths, opportunities, and threats of organization. Therefore, the SWOT technique could be used as an effective approach for extracting of implementing strategies for the ERP system.

- Return on investment of training should be computed prior to the preparation of the ERP plan. The real return on investment is recommended to be calculated through an exact calculation of real costs and to be compared with the predicted data.

- Individual's different learning styles should be identified. For this purpose, adequate information must be given to them, regarding different individuals' training styles. In addition, appropriate training programs should be provided to the employees involved in the implementation team for increasing soft skills, problem-solving techniques and strategies and overall cognitive strategies.

- Before the implementation of project, a Chief Learning Officer (CLO) who is familiar with the ERP and learning subjects should be selected with enough authority. Also, learning requirements and objectives should be defined according to strategic goals independently and measurable considering a set of special skills of the project.

- Some responsibilities should be handed over to the employees involved in the project compatible with their position and suitable team training must be conducted for them before the project implementation.

- It is highly recommended to establish evaluation structure, criteria and effective evaluation checklists. Also, the appropriateness and adequacy of the provided training programs and continuous improvement of such programs are important to be considered.

- Continuous planning for sustaining ERP and allocating appropriate resources are necessary for the dynamism of system. If the organization uses the fifth discipline of Peter Senge and also uses the LRP model, its movement towards learning organization is guaranteed.

The following subjects are suggested as future research opportunities:

- Studying existing learning models for the implementation of ERP.

- Application of the LRP model in other organizations exploiting ERP and comparing the results with the results of this investigation.

- Studying the effects of selecting employees on the success of the project based on technology adoption continuum.

- Investigating the effects of the coordination of the strategy of ERP implementation with the organization strategies on the success of the project.

- Studying the obstacles and limitations of the application and use of ERP in each of the operational units of the Esfahan Steel Company.

- Investigating the factors affecting the development of systems thinking in the large organizations.

- Designing a model for the evaluation structure, criteria, and measurement of training effectiveness of ERP project in organizations.

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Table 1. The average value of the group of LRP tasks before the implementation of ERP

| Description of the group of tasks | Value |
| --- | --- |
| General Tasks | 0.25 |
| System Thinking | 0.51 |
| Benchmarking | 0.51 |
| Analysis of key processes | 0.64 |
| Bill of learning | 0.07 |
| Average | 0.40 |

Table 2. The average value of the group of tasks during the implementation of ERP

| Description of the kind of activity | Value |
| --- | --- |
| Gross-to-Net Learning Requirements | 0.43 |
| Employee Learning Styles | 0.01 |
| Maslow's Hierarchy of Needs | 0.18 |
| Identify Types of Courses and Learning Events Needed | 0.55 |
| Identify Delivery Strategy for Courses and Learning Events | 0.50 |
| Develop Instructional Strategies and Tactics for Teaching | 0.51 |
| Develop Learning Objectives | 0.38 |
| Identify Attributes of ERP Appealing to User | 0.66 |
| Identify Employee in the Technology Adoption Chain | 0.25 |
| Identify Method of Determining Opinion Leaders | 0.31 |
| Identify Employees for the Implementation Team | 0.62 |
| Providing Team Training | 0.21 |
| Consider Pros and Cons of Each of the Setup Methods | 0.13 |
| Conduct a Formative Evalauation | 0.05 |
| Conduct a Level 1 Summative Evaluation of Training | 0.12 |
| Conduct a Level 2 Summative Evaluation of Training | 0.00 |
| Conduct a Level 3 Summative Evaluation of Training | 0.08 |
| Conduct a Level 4 Summative Evaluation of Training | 0.00 |
| Average | 0.28 |

Table 3. The average value of the group of tasks after the implementation of ERP

| Description of the kind of activity | Value |
| --- | --- |
| Planning Tasks | 0.44 |
| Resource Tasks | 0.62 |
| Rewards and Incentives | 0.17 |
| Learning Disciplines | 0.23 |
| Average | 0.37 |
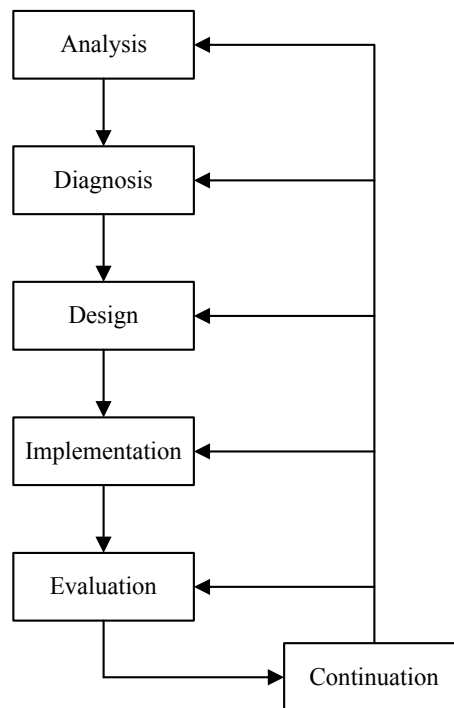
Figure 1. Diagram of LRP Model for ERP implementation (Kapp et al., 2001)
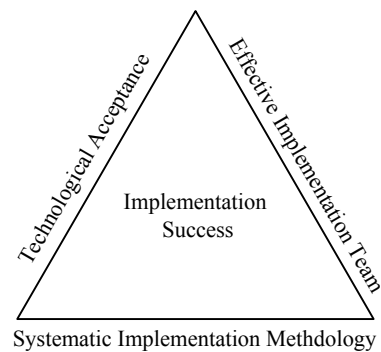


Figure 2. The Critical Areas of Success for an ERP Implementation (Kapp et al., 2001)
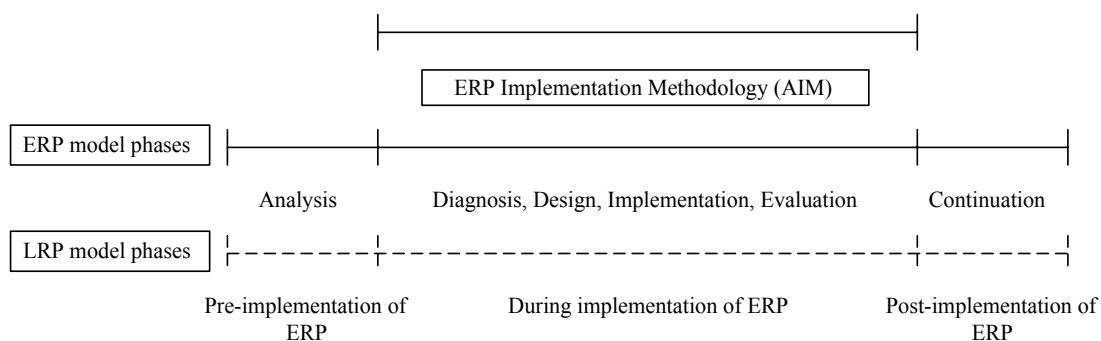


Figure 3. Research methodology: LRP phases before, during and after implementation of ERP
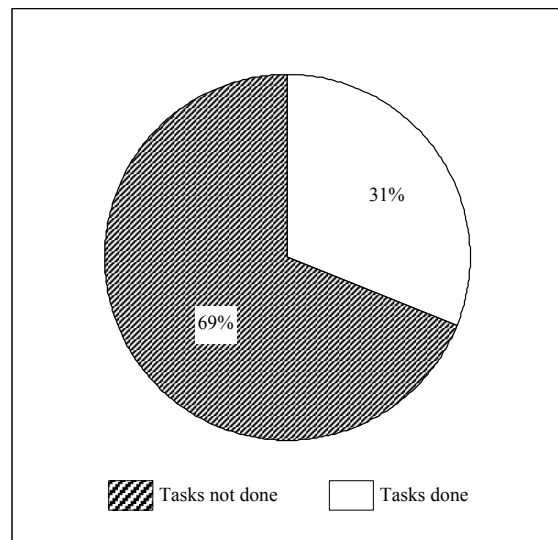
Figure 4. The percentage of the tasks done in relation to the whole tasks in the LRP model