

# Staff Education Cycle for Organization Development in Hi-Tech Companies

Ivaylo Simeonov

**Abstract:** This paper discusses the staff education cycle for organization development in hi-tech companies to the competitiveness improvement and the company advance. The training evaluation process is also considered as the main part of the chosen strategy and the human resource management.

**Keywords:** staff education cycle, organization development

## 1. Introduction

When the new high-tech technology is available, the only variable parameter to give competitive advantages to organizations appears to be the quality of its human resource [1]-[2]. The implementation of the new technology is often accompanied by a dramatic change in human resource policy and implementation of various types of R&D programs for future product research and investigation.

Industry as well as publicly funded research organizations is facing challenges which are dramatically changing their features. Industry faces increased international competition, increased customer demand, shorter product life and increased complexity of the new product. Publicly funded research organizations face governmental and industrial pressure to become more financially independent, more commercial in operation and adopt the more business-like principles [3]. It is the value creation in today's faster changing knowledge economy. Training, education and learning organization and a knowledge-based organization requires focusing on business strategy and results, teamwork and cooperation, and willingness to undertake the training process and learning activities in innovation ways [4].

The hi-tech companies are becoming the leading ones in the market, because the core of the knowledge economy is innovation. This innovation adds a high value to the products and services, and provides them to the competitive advantages, making it possible for the companies to enjoy the sustainable development. The organization development is based on the realization of the of the benign evolution pattern of "innovation – efficiency - reinnovation" in the hi-tech companies [5]. So the key sustainable development factor is identified as a staff education process.

Our previous work [6]-[7] are focused to the human resource development and staff education. This paper discusses the staff education cycle for organization development in hi-tech companies to the competitiveness improvement and the company advance. As the main part of the education cycle description is discussed in our previous work [6], this paper will discuss the relationship between the particular parts of the cycle and the valuation criteria of the education process.

## 2. Education cycle description

The advent of the knowledge economy era, knowledge has become a determinative in the fierce competition and knowledge capital. The staff education process possesses the following 3 aspects [6]:

- Education (knowledge improvement, study of the basic courses, etc.)
- Training (innovation acquirements, study of the specific courses, etc.)
- Development (sustainable improvement, competitiveness growth, etc.)

The R&D process in the hi-tech companies requires a continuous and high level education to provide a sustainable organization development and innovation improvement. The main factors of the staff education cycle are connected with the information access and defense of the intellectual properties.

The education cycle (fig.1) is a very complicated and long-time process. It requires significant financial resources to ensure the continuity and the quality of the process. The first step of the education cycle begins with the definition of the education needs. This stage is the most important step of the education process, because it forms the cycle frame and defines the required financial resources, education duration and number of the involved participants.

The next two stages specify the education objectives and goal to prepare the particular education plan and programs. The key factor in the program preparation appears as a current plan and program update according to the environment changes and company strategy. The successful program should be based upon the staff's full knowledge of the company development strategy and the vacancy post status. It should pay attention to the vertical and horizontal development as the both parts had to be included equally in the prepared plans. So, a flexible education programs should be drawn up according to the company needs and innovation technology requirements.

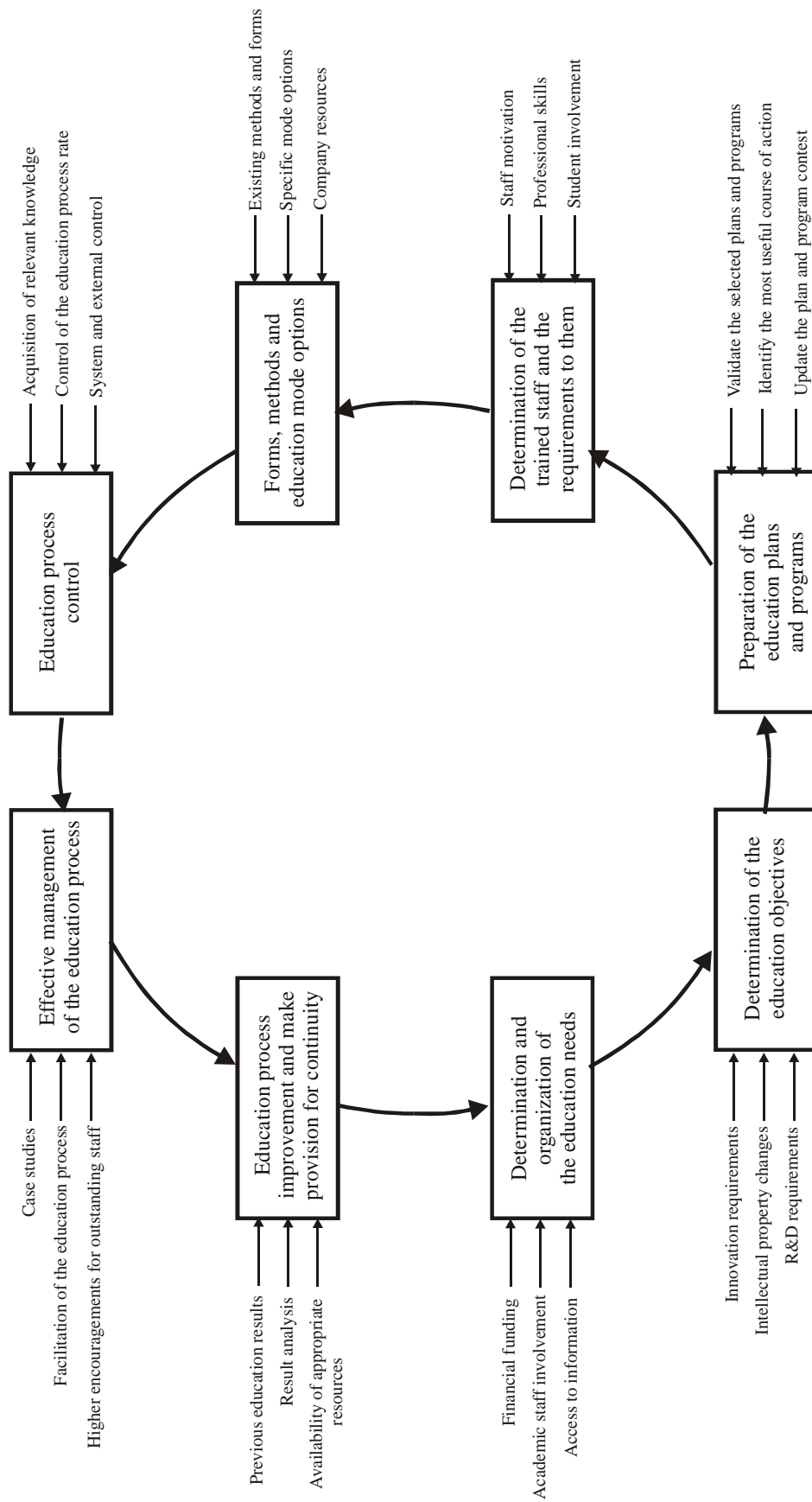


Fig.1. Staff education cycle diagram

The third education stage defines the trained staff and the basic requirements to the participants. To ensure the sustainable development of the hi-tech companies, the human resource managers had to include the students and other academic staff in the education process. This fact is conditioned by the primary goal of the universities, which perform applied research. To attract the attention of this division, the companies had to stimulate publishing and bring their staff in contact with professional networks.

The other main part of the education cycle is distinguished as an education control process. The most important factor of the education success is identified with the training evaluation process since the human factor is the critical one in the high-technology development. Evaluation is undertaken for several purposes, which are:

- To determine whether a program is accomplished its objectives
- To identify the strengths and weaknesses of the human resource development process
- To determine the cost/benefit ratio of an human resource development program
- To test the clarity and validity of the tests, questions and exercises
- To establish a database, which can assist management in decision-making process

The control process allows comparing the education results of every participant from the previous and current cycle and the manager body had to take steps to ensure the high quality of the process. The successful participants are invited to take part in the second level of the company education process.

The education success is based on the staff motivation. It includes higher encouragements and carrier possibilities for the outstanding staff, extra payments for extraordinary education results and financial distribution according to the company section growth. The trained staff is encouraged to mould some parts of the program specifications to motivate them to take part in the active discussions during the education cycle.

The enormous financial resources for the education evaluation process require appropriate criterions to protect the company interests. The practice shows that sometimes the trained staff relinquishes their positions and begins the regular work to the rival companies. To avoid this situation, the manager staff had to include the financial forfeits at the beginning of the second level of the education process and to prohibit the start job in the alternative companies for the preliminarily defined period.

### 3. Conclusion

This paper discusses the staff education cycle for organization development in hi-tech companies to the competitiveness improvement and the company advance. The training evaluation process is also considered as the main part of the chosen strategy and the human resource management. It is shown that the hi-tech company should accept student and academic staff involvements to provide the sustainable organization development. Also the appropriate programs should be prepared, which pay attention to the vertical and horizontal development and high motivation procedures are required during the education process to guarantee the high education results.

The high education cost insists on the appropriate criterions to protect the company interests. So the relevant financial condition had to be set at the second level of the education process while the company know-how is included in the education process.

### References:

- [1] Ramsumair Singh - Human resource management: The key to the competitive advantages, *Engineering Measurement Journal*, June 1992, pp.116-120
- [2] Ivaylo Simeonov, Boryana Kolchagova – Management model for the organization development of the hi-tech production,
- [3] S.W.F. (Omo) Omta and Jo M.L. van Engelen – Enhanced staff motivation in publicly funded research and industrial R&D,
- [4] Abdullah Lin and Reha Abdul Razak – The effectiveness and practical application of human resource development (HRD) programs in the semiconductor industry – A case study of SilTerra Malaysia Sdn Bhd, *IEEE/SEMI Advanced Manufacturing Conference*, 2003, pp.175-187
- [5] Chen Jin, Wang Li-Ying – Flow and retention of Intellectual employees in Hi-tech companies, pp.176-180
- [6] Ivaylo Simeonov – Organization development improvement through the staff education,
- [7] Ivaylo Simeonov – Human Resource development: The key to the organization development, Sozopol, 2-5 June, 2004