

THE ANALYSIS OF VOCATIONAL TRAINING NEEDS. THE CASE OF ROMANIAN INDUSTRIAL ENTERPRISES

Alin Gaureanu

Politehnica University of Timisoara, Romania
gaureanu.alin@gmail.com

Andreea Cristina Bejinariu

Politehnica University of Timisoara, Romania
bejinariu_andreea_cristina@yahoo.com

Cristina Feniser

Technical University of Cluj-Napoca, Romania
cfeniser@yahoo.com

Gabriela Alina Paraschiva

Politehnica University of Timisoara, Romania
pga@windowslive.com

Abstract:

The actual global market pressures determine enterprises to change their behaviours, to develop project teams and to promote through their employees concepts like: initiative, individual and collective responsibility and polyvalence work duty. Based on these issues, more and more enterprises discuss with their potential or actual employees about aspects related to their competencies, education and training needs. In this context, the article presents a research approach aiming the identification of the employees' vocational training needs and their characterization. The management perspective on the vocational training needs have been considered and debate in the final part of the research when conclusions were elaborated. The research allowed the definition of the employees' profile as future trainees. The proposed methodology has been used in the case of a group of industrial enterprises, located in the West Region of Romania. In addition, there were established on the one hand, the training requirements list for the employees and on the other hand, the managers training requirements list, in case of the investigated group of industrial enterprises. As a general conclusion, the study has underlined that the perception regarding the vocational knowledge level in the field of human resources management was adequate.

Keywords: Human resources, management, vocational training, training needs, industrial enterprises

1. INTRODUCTION

The continued need for individual and organizational professional skills and competencies development can be traced to numerous demands, including maintaining superiority in the marketplace, enhancing employee skills and knowledge, and increasing productivity. It has been recognized that, training is one of the most pervasive methods for enhancing the productivity of individuals and communicating organizational goals to new personnel (Arthur et al., 2003).

The transformation from implementing required training to today's newer model of designing training programs that focuses on performance-based training will only heighten the need to ensure that training is both the correct solution and effective (Cekada, 2010). In this new context, a training needs assessment is used to determine whether the training program (structure, content and the way of their delivery in terms of the combination of the right theoretical and practical knowledge) is the right solution to a workplace or a qualification problem. It is an *"ongoing process of gathering data to determine what training needs exist so that training can be developed to help the organization accomplish its objectives"* (Brown, 2002, p. 569). Said more simply, it is the *"process of collecting information about an expressed or implied organizational need that could be met by conducting training"* (Barbazette, 2006, p. 5). According to Rossett (1987, p. 15), a company conducts a training needs assessment to seek information about 1) optimal performance or knowledge; 2) actual or current performance or knowledge; 3) feelings of trainees and other significant people; 4) causes of the problems; and 5) solutions to the problem.

The scholarly literature on training needs assessments is limited, several case studies describe how specific organizations or industries have conducted such assessments. Moreover, much of the research on this topic indicates that organizational characteristics, such as size, goals and resources, public versus private sector, global marketplace and corporate climate, may influence the assessment methodology selected. In addition, special challenges that organizations address may require special tools for conducting a training needs assessment (Cekada, 2010). Furthermore, some practical works are not performance-based and employees often identify training wants versus training needs. These could affect the entire human resources development and could induce deviations from the whole development strategy of an organization.

Usually, the training need assessment has to be correlated to the results of deep analysis achieved at three levels of the assessment: organization (the managerial perspective), operations and individual (employees perspectives). Table 1 summarizes the most known models for training needs assessment as a synthesis on Cekada research (2010).

Table 1: Models for Training Needs Assessments

McClelland Model (1983)	Barbazette Model (2006)	Brown Model (2002)
1) Define assessment goals. 2) Determine assessment group. 3) Determine availability of qualified resources to conduct and oversee the project. 4) Gain senior management support for and commitment to the process. 5) Review and select assessment methods and instruments. 6) Determine critical time frames. 7) Schedule and implement. 8) Gather feedback. 9) Analyse feedback. 10) Draw conclusions. 11) Present findings and recommendations.	Why the benefit of the training is greater than the cost of the current deficiency Who is involved in the performance deficiency How the performance deficiency can be corrected - What is the best way to perform a specific job task will help When training can best be delivered helps minimize the impact on the business	1) What is the nature of the problem being addressed by instruction? 2) How have training needs been identified in the past and with what results? 3) What is the budget for the analysis? 4) How is training needs analysis perceived in the organization? 5) Who is available to help conduct the analysis? 6) What is the time frame for completing the assessment exercise? 7) What will be the measure of a successful training needs analysis report?

Source: Synthesis of the research done by Cekada, 2010.

The needs assessment is the first step in establishing an effective training program. It serves as the foundation for determining learning objectives, designing training programs and evaluating the training delivered. It also provides managers and trainers an opportunity to get out into the organization and talk to people. Information is collected, ideas are generated and energy is created within the organization. This excitement can help energize any training that may results. These assessments can provide many benefits as the following (Cekada, 2010):

- 1) Increasing the commitment of management and potential participants to ongoing training and development;
- 2) Increasing the visibility of the training function;
- 3) Clarifying crucial organizational issues;
- 4) Providing for the best use of limited resources;
- 5) Providing program and design ideas;
- 6) Formulating strategies for how to proceed with training efforts.

In the context of this article is presented the analysis of vocational training needs, in the case of eight companies located in the West region of Romania. The organizational (managerial), operational and individual (employees) assessment levels will be presented. Finally, some conclusions will show the value added of the research done in the case of the enterprises included in the sample.

2. THE RESEARCH CONTEXT

In the context of the Romania integration and development into the European Union, the market pressure increases and enterprises are continue forced to change their behaviours, to develop project teams and to promote and encourage employees characteristics like: initiative, individual and collective responsibility and work duty polyvalence. Based on these issues, more and more enterprises communicate with their potential or actual employees about competencies, education and training requirements (Draghici et al., 2006).

From the economic point of view, small and medium enterprises (SMEs) are the “research and innovation engine” and they influence the changes in whole society. Furthermore, these enterprises are strongly related to the development and implementation of concepts as: technical innovation, systemic integration and competitiveness increasing. The new continuous changing environment determines the evolution of the classical interpretations and traditional concepts about SMEs that start to remain without senses. In consequence, there are identified needs for develop of new potentials inside the enterprise and which are in harmony (or correlate) with its own development potentials and with human resources (or human capital) competences (Draghici et al., 2006).

The technological development has determined the changing in some work operations, but also, some operations (or even processes) disappear or new activities or processes appear. As a consequence many work positions and job descriptions were changed because of the competences and abilities required that were changed. Romania is in such a position, of transformations and transition to a competitive economy which demands other set of needs for human resources’ vocational training (Draghici et al., 2006). In this context, the present research, for identifying the vocational training needs for the human resources involved in the industrial environment, has the following objectives: (1) identification of the vocational training requirements of the employees from industrial enterprises; (2) identification of the vocational training requirements of the managers that request and financial support the training programs.

These objectives have risen from a vast analysis developed upon 28 enterprises from the West Region of Romania, regarding the vocational training of their employees, in the context of their human resources development strategies (including personal and professional development and the careers plan establishment where it is needed). The present paper underlines only the research results from eight industrial enterprises that have more than 100 employees. The research analysis was developed at the:

- Organizational level when research conclusions were formulated in accordance with the enterprises strategic objectives, their socio-organizational evolution;
- Working group level, and
- Individual level, for each person, employee.

For all the levels of the analysis there have been characterized the human resources vocational training

needs by considering the research findings and their meanings and significances from the perspective of different level of the analysis. The systematic approach, from the perspective of the human resources continuing adaptation to the work conditions and requirements, and vice-versa, have determined to include in the study the needs and relevant constrains that human operators, employees are faced with in the industrial environment that exists at each enterprise considered in the research.

3. THE VOCATIONAL TRAINING NEEDS FOR THE PERSONS THAT WORK IN THE INDUSTRIAL ENVIRONMENT

3.1. The characterization of the study's sample

The persons/subjects involved in the study were employees of the 8 representative industrial enterprises with more than 100 employees. The 8 industrial enterprises repartition regarding their industrial profile is shown in Table 2. In Table 3 are presented the groups characteristics that were identified for each enterprise of the sample.

Table 2: The sample of industrial enterprise – profile characterization

Enterprise's Profile	No. of enterprises
Shoe production	2
Textile production	2
Thermo-electrics	1
Apparatus and machines	3

Source: Authors own development

Table 3: Short description of the enterprises included in the research sample

No.	Enterprise	No of subjects in the group	The group structure by gender		Professional experience [years]		
			Female	Male	0-5	5-10	>10
E1	Shoe production	14	8	6	4	3	7
E2	Shoe production	15	5	10	7	2	6
E3	Textile production	15	15	-	2	1	12
E4	Textile production	17	17	-	1	3	13
E5	Thermo-electrics	16	1	15	-	3	13
E6	Apparatus and machines	18	2	16	-	3	13
E7	Apparatus and machines	20	1	19	1	6	13
E8	Apparatus and machines	21	3	18	-	7	14
TOTAL		136	52	84	15	28	93

Source: Authors own development]

3.2. The research methodology

For attending the first research objective we choose a qualitative method: the phenomenology analysis of the group and the technique use was the group interview technique, non-direct centered. The technique consists in interviewing the group in which the free involvement subjects have been face with a real and imaginary situation and they were stimulated to give their opinions, impressions and concerns regarding the presented situation. We have collected and considered the comments that are related to a big adhesion (Piveteau & Noyé, 2016).

The thematic of the group interview refers to:

- Their position, opinion about an efficient vocational training course/program;
- What they have to suggest to the trainer for attending the desire results after a vocational training course/program.

By synthesis the answers given by the subjects, there have result the common vocational training needs for all the groups, as well as some different aspects have been underlined. The needs expressed by the 8 groups (explained in Table 3) are:

- N1 – The vocational training need;
- N2 – The courses/programs have to be practical oriented, with case studies and examples of good practice;
- N3 – The trainer has to present the theoretical part of the courses/programs in manner that is motivate and attractive. So, the students will be attentive during the whole course/program;
- N4 – The training program has to be done only when a specific practical problem requires new knowledge for the employees;
- N5 – All available facilities for the training courses/programs have to be at the students' disposal;
- N6 – The trainer has to use very efficient the time allocated for the training courses/programs;
- N7 – The trainer has to be able to answer with high competencies and in due time, all the students' questions for satisfying their needs.

Considering the above list of need we can make some important remarks.

N1 – The vocational training need

The research sample consists of adult persons that have conscious about their vocational training basic need as a long life learning process. They have different arguments that motivate them. We have to remark that young people/employees, with a professional experience from 0 to 5 years (that represents 11% from the total subjects of the sample; 15 persons from 136), are motivated to accumulate knowledge because these will help them to find a new, better job which will satisfy them better. The described situation implies a non-fidelity attitude of the young employees regarding the enterprise and, of course, a wrong behaviour of the enterprise regarding their young employees (as supported also in the work of (Díaz et al., 2010; Piveteau & Noyé, 2016)).

The subjects/employees with a professional experience from 5 to 10 years (that represents 20.6% from the total subjects of the sample; 28 persons from 136) were more careful to the answers regarding the personal motivation linked with the vocational training:

- 64.3% (18 responders from 28 groups' participant) have motivated the technological progress as an implicit element for the vocational training. We can remark that the 18 subjects/employees belong to the enterprises that produce apparatus and machines and to the enterprises with a thermo-electrics profile. Those justify the subjects/employees answers.
- 35.7% (12 responders from 28 groups' participant) have motivated their need for vocational training as a necessity for work-place stability, respective for a better payment for their job. We can remark that the majority of them are employees of the textile industry where, is well known, that the level of remuneration is low. Other remark is that women, who dominate the job occupational in this industry and who have comments about the level of their salaries, have declared and sustained their priority on having a stabile work-place.

The employees with more than 10 years of professional experience (not only in the same enterprise) represent 68.4% of the groups' participants (93 from the total of 136 subjects involved in the research) and they have the following motivations:

- 24.7% (23 responders from 93 subjects) were motivated by their job attestation or by immediate, concrete promotion;
- 19.3% (18 responders from 93 subjects) of the responders had priorities in developing their carrier and, in majority, they were devoted to their enterprise and well-motivated;
- 56% (52 responders from 93 subjects) were motivated by the work-place stability and the technological progress that they have to face to for gaining stability. It is worthy of note that from the 52 subjects, 28 were women, who has the fear that from a specific age it is difficult to find a job corresponding with their occupation.

A synoptically presentation of the research results are given in Table 4.

Table 4: The subjects' answers – synoptically presentation

Seniority / %	Subjects answer / motivation	Observation
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0-5 years – 11% (15 subjects)	- 11 % a new job	Lack of fidelity/loyalty for enterprise
5-10 years – 20.6% (28 subjects)	- 64.3 % (18 subjects)-technological development - 35.7 % (10 subjects) • The place of employment stability (women in majority) • A new job	- Most of them in machinery and apparatus industry - Most of them in light industry
Over 10 years – 68.4% (93 subjects)	- 24.7 % (23 subjects) • The job attestation, promotions - 19.3 % (18 subjects) • Careers - 56 % (152 subjects) • The place of employment stability • Technological development	- Are loyal to enterprise - Are loyal to enterprise - The majority are women who want the job stability

Source: Authors own development

N2 – The courses/programs have to be practical oriented, with case studies and examples of good practice

The courses have to be practical, concrete with punctual solving. The vocational training is addressed to adults which have a formed personality, who are aware of their vocational training, but who, in majority, want a punctual, practical education, in their professional area (or in adjacent area) (Díaz et al., 2010; Piveteau & Noyé, 2016). In the ratio of 75 % (102 persons) want knowledge for solving the problems they confront with or knowledge necessary for their job attestation or promotion. It was noticeable that young persons (who search another job, adequate to their tendencies) have also underlined the need of theoretical context understanding in a bigger range of information. That attitude of groups is correlated with the next category of need.

N3 – The trainer has to present the theoretical part of the courses/programs in manner that is motivate and attractive. So, the students will be attentive during the whole course/program

The theoretical part of courses must be presented by the formative staff in a stimulating manner for students in order to keep the attention up during the course. Once the people get older appear the barriers regarding the theoretical accumulations, concerning new competencies acquirement. This fact was remarked into the studied groups. The majority (one of them after 10 years of experience in their professional field) imposes its point of view in the frame of the discussion concerning the theoretical informational content in proportion to the practical informational content. This point of view was favorable to the practical informational content. The need of subjects to inform and train themselves was restricted, broken by their limited availability for the theoretical accumulations, in favor of the practical accumulations (Díaz et al., 2010; Piveteau & Noyé, 2016).

N4 – The training program has to be done only when a specific practical problem require new knowledge for the employees

At this idea have adhered totally 72.8% (99 subjects from 136 subjects), the others agreed the idea, but they exhibit the need of a continuous training, from different reasons, namely:

- Some want a professional career and have the disposition of continuous information;
- Others want to accumulate new competencies for finding a well paid job for which is required experience and good professional knowledge.

It is worthy of note that women, justifying the lack of time, they having also domestic responsibilities, have adhered , in proportion of approximately 90%, at this “need” statement in the variant that the “training has to be made just when concrete situations require that” (also mention in the work of (Díaz et al., 2010; Piveteau & Noyé, 2016)).

N5 – All available facilities for the training courses/programs have to be at the students' disposal

The participant subjects at study have identified some material, financial and informational facilities for the good learning development, the presence of a competently trainer who has to answer “*concrete, precisely*” at their questions, and the theoretical support for every student. Regarding the financial resources only 10.3% (14 from 136 subjects) are disposed to pay the course tax themselves, the others want that the enterprise to be the one who invest in their vocational training. The most of them reasoned that even if they want to financial sustain their vocational training, their resources are limited (Díaz et al., 2010; Piveteau & Noyé, 2016)

N6 – The trainer have to use very efficient the time allocated for the training courses/programs

The future students want to get useful professional information, in an optimal period of time for them, because their time budget for training is limited: professional duties, personal problems, etc. which means that the trainer must use efficiently the time.

N7 – The trainer have to be able to answer with high competencies and in due time, all the students' questions for satisfying their needs.

Into the rational component of learning, subject keep in view the learning development by competently trainers who fulfill their implicit expectations from the informational, professional point of view, at the appropriate moment (Díaz et al., 2010; Piveteau & Noyé, 2016).

3.3. The vocational training needs identification for managers who require and financial sustain the vocational training

The manager is responsible of employee competencies administration, according with enterprise objectives and from this reason he deals with training organizing for education of them and the co-workers. For the study was considered a sample of 14 managers, (8 manager of the 8 enterprises presented and 6 heads of departments), 3 of them being women.

The research methodology consists of a half-structured interview that was used to identify the training needs of the managers. The interview was centered on the following aspects:

- The content of training and the desired competencies;
- The necessary time for training;
- The training costs;
- The best means for training;
- The training results assessment.

After the data processing, in quantitative and qualitative ways, the following managers needs were stated:

- N1 – Manager need an adequate training to the job specificity. It is worthy of note, for all the subjects interviewed, their opened attitude and their availability for training on a wide informational range but specific to the job, concerning their own education. In the same time they have found out and enunciated the vocational training needs for co-workers according with the established objectives.
- N2 – Vocational training “just-in-time”. The same kind of need, that is vocational training “at the right moment”, met at common employees, was noticed also at managers, imposed by their “need” to give answers at their problems, just in time.
- N3 - The training period has to be minimal with maximal accumulation and efficiency. A need imposed by the limited time of subjects and the costs involved.
- N4 – Minimal costs have to obtain the best “trainings”. Managers think at their vocational training and their co-workers vocational training in variant of an optimum between the investment and the profit obtained by training. Logically, they want to get maximal results with minimal costs.
- N5 – The methods used in teaching system have to be modern and efficient. Managers had the availability and the manifested desire for training, being aware about importance of their vocational training at a competitive level, about the achievement of new competencies and skills needed to reach the objectives proposed by enterprise.

4. CONCLUSIONS

The research described above has allowed the definition of the adult student profile. Also, there were established on the one hand, the training requirements list for the students - employees and on the other hand, the managers training requirements list, in case of industrial enterprises. The general perception regarding the vocational knowledge level in the field of human resources management was found as adequate. At the organizational level, the human resources vocational training offers feasible ways for develop the employees' competencies and abilities so they can attend with success their duties in accordance with the job description. The most relevant conclusions of the research are:

- The subjects that were interviewed (simple employees or managers) had agree on the importance of the vocational training which they consider a key factor that guarantee their career development;
- Each employee from the study have different motivations for satisfying her/his vocational training needs (a better job, promotion, new competencies because of the technology progresses etc.);
- Women and most of the men with a professional experience more than 10 years need vocational training for work-place stability;
- The subjects/employees expressed their need for "just-in-time" training and with subjects of most interest for the moment;
- The subjects/employees have great exigencies for the trainers and from their professional competencies;
- Employees have financial disposal for the courses/programs payment;
- Managers agreed vocational training programs with minimum cost and maximum efficiency;
- The cognitive behavior has influenced the learning rhythm and the type of learning method (theoretic or practical competencies learning).

REFERENCE LIST

1. Arthur Jr, W., Bennett Jr, W., Edens, P. S., & Bell, S. T. (2003). Effectiveness of training in organizations: A meta-analysis of design and evaluation features. *Journal of Applied psychology, 88*(2), 234.
2. Barbazette, J. (2006). *Training needs assessment: Methods, tools, and techniques* (Vol. 1). John Wiley & Sons.
3. Brown, J. (2002). Training Needs Assessment: A Must for Developing an Effective Training Program. *Public Personnel Management, 31*(4), 569–578.
4. Cekada, T. L. (2010). Training needs assessment: Understanding what employees need to know. *Professional Safety, 55*(03), 28-33.
5. Díaz, M. J. F., Santaolalla, R. C., & González, A. G. (2010). Faculty attitudes and training needs to respond the new European Higher Education challenges. *Higher Education, 60*(1), 101-118.
6. Draghici, A, Mihartescu, A., Mocan, M. (2006) Aspects quantitatifs du marche de la main d'oeuvre en Roumanie dans le context du processus de preadheration a l'Union Europeenne. XII Copnference Internationale du Reseau PGV, La dynamique des ressources humaines – facteur potentiel d'integration dans l'Europe elargie, Editura Universitatii de Vest Timisoara, 215-226
7. McClelland, S. B. (1993). Training Needs Assessment: An "Open-systems" Application. *Journal of European Industrial Training, 17*(1).
8. Piveteau, J., & Noyé, D. (2016). *Le guide pratique du formateur: concevoir, animer, évaluer une formation*. Editions Eyrolles.
9. Rossett, A. (1987). *Training needs assessment*. Educational Technology.