ENHANCING THE EMPLOYMENT CAPABILITY OF THE LABOR MARKET BY IMPROVING THE SKILLS AND PROFESSIONAL COMPETENCES OF THE LABOR AVAILABLE

Liliana Georgeta Popescu¹, Marinela Inţă¹
¹“Lucian Blaga” University of Sibiu (ROMANIA)

Abstract

In order to be competitive, companies need to use modern working tools and advanced technologies to bring quality, low-priced products to competition. This is one of the reasons that has led to an increase in the number of unemployed with technical studies. Competencies in areas such as design, manufacturing, computer-aided engineering, etc. are currently mandatory requirements for employees, but not all companies have the time and financial resources to train them. The skills and competences needed to exploit such advanced technologies are trans disciplinary, and the human resource prepared to use such tools is not easily accessible to firms. In this situation, employees who have not been able to train themselves, have lost their jobs, and currently have no financial means to pursue further training.

It was done an analysis of the unemployed registered in the Sibiu County, and together with the industry specialists the number of employees with inadequate training was identified. This paper presents a study on the possibility of improving the skills and competences of the technically trained persons in the study programs organized within the Faculty of Engineering of "Lucian Blaga" University of Sibiu (Romania). After defining the problem tree and the object tree, using the project management specific stages, the types and ways of delivering integrated and innovative customized engineering training services will be established.

Keywords: Professional skills, labor market, lifelong learning.

1 INTRODUCTION

According to statistical data registered at the end of 2017 elaborated by the Romanian National Institute of Statistics it results that the number of unemployed in the country is increasing by 20.2% compared to the previous year. Their structure, from the point of view of the training level, consists of: 37197 university graduates, 110147 with high school and post-secondary education, 346431 with primary, secondary and vocational education.[1]

At the level of unemployed with university studies at the end of 2017, in Romania there was a slight decrease of 3.94%. The West Region (W), North-East Region (NE), Center (C), Bucharest-Illfov (BI) and South-Muntenia Region (SM) have a large number of unemployed with university studies. At the end of 2017, according to Romanian National Institute of Statistics, 18698 unemployed persons were registered in these regions, representing more than 50% of the total number of unemployed with university studies.[1]

The analysis of the unemployed registered in the counties belonging to the Euro regions to which Sibiu and neighboring regions belong is presented in the table below:

<table>
<thead>
<tr>
<th>THE REGION</th>
<th>Unemployment rate</th>
<th>Unemployed with university studies</th>
<th>Young long-term unemployed</th>
<th>Long-term unemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center</td>
<td>6,94%</td>
<td>6129</td>
<td>3064</td>
<td>15942</td>
</tr>
<tr>
<td>West</td>
<td>4,75%</td>
<td>2183</td>
<td>586</td>
<td>6398</td>
</tr>
<tr>
<td>South-Muntenia</td>
<td>7,12%</td>
<td>1086</td>
<td>3135</td>
<td>28028</td>
</tr>
</tbody>
</table>
Not only did the economic crisis lead to an increase in the number of unemployed with technical studies, but also to the increase of the employers’ requirements regarding the competencies of the employees, given that in order to be competitive they need to use modern working tools and advanced technologies for bringing pre-competitive market for quality and low-priced products.

2 ANALYSIS OF THE NEED FOR THE ORGANIZATION OF PERFECTION COURSES

Competencies in areas such as design, manufacturing, computer assisted engineering, etc. are currently mandatory requirements for employees, but not all companies have the time and financial resources to train them. In this situation, employees who have not been able to train themselves, have lost their jobs, and currently have no financial means to pursue further training. For them, universities could develop intensive courses aimed at the needs of employees and employers in the technical field.

2.1 Motivation of the necessity of organizing training courses by the university

Today, the engineering industry faces numerous challenges due to a difficult economic situation, globalization and strong competition that require high productivity and low-quality products. Thus, in order to survive on the market, Romanian companies have the need to get in touch and to implement the engineering novelties, the current ways of organizing information and work in the development of new products, responding to the trends of a globalized industrial market.

The skills and competences needed to exploit such advanced technologies are trans-disciplinary, and the human resource prepared to use such tools is not easily accessible to firms. Thus, managers already faced with the need to adopt a new way of working and use, to increase efficiency, a range of modern software applications and technologies, also have to solve the problem of finding and training the workforce able to work with these tools. On the other hand, unemployed people, especially those with long-standing higher education, who usually interrupt contact with industry news, cannot apply to such job offers due to lack of information, lack of specific skills, and lack of financial possibilities to pay for such training.

Thus, the project proposed by the team of “Lucian Blaga” University of Sibiu was to apply integrated measures to a target group consisting of 500 inactive persons, jobseekers and unemployed people from the development Romanian regions: South-Muntenia, West and Center.

From the nationally published data of Romanian National Institute of Statistics the national employment rate in 2017 was the following: 63.5% for the age group 20-64 years, for women 65.3%, which is lower than for men 70.7%, for young people 24.5%. The long-term unemployment rate was 28.9% for women and 31.6% for males.[1]

Based on these data, the general needs of the potential members of the project target group were identified, these being:

- Acquiring the new skills and competences needed to exploit advanced trans-disciplinary technologies;
- Acquiring skills in various software applications and modern technologies;
- Increase in work efficiency;

2.2 Drawing the problems tree and the objectives tree

The analyzed project supports these unemployed by providing them with:

- Personalized professional counseling services to determine the need and level of training and training according to the identified needs of potential employers;
- Free access to the course program, courses that meet the above requirements, carried out in a hybrid system, first online and then face to face with the instructor;
- Free evaluation of the acquired knowledge and enrollment of the results obtained in the learner's competency catalog;
Mediating the relationships between the target group and the potential employers. The target group consists of people looking for a job, unemployed aged over 45, young unemployed, including women, graduates of technical studies.

The categories of people most affected by long-term unemployment need support. That is why it is necessary to consider, on the one hand, the growth of their skills correlated with the requirements of the market, and on the other hand the mediation of the relations with the potential employers through a dedicated IT platform that will be developed in the project. Also, the course curriculum will also include entrepreneurship modules to provide them with the necessary knowledge and skills to start a business, possibly along with other unemployed people in the target group.

The Problems Tree is sketched in Figure 1.

![Problems Tree](image)

Based on analysis of the problem tree [2], the object tree has been developed in graphic form. (Fig.1.)

![Goals Tree](image)
The overall objective of the project was to improve the employability of 500 job seekers by providing integrated and innovative personalized engineering training in order to improve their professional skills and competences, better correlation with labor market requirements in the Central, West and South-Muntenia regions from Romania.

2.3 The project objectives

The specific objectives (SO) were:

SO1. Linking the supply of competences of the targeted group to the requirements of the regional labor market and developing the vocational training offer tailored to regional and sectorial specificities.

SO2. Increasing the (re)integration of the target group into the labor market by providing an integrated package of professional information and counseling services, mediation and training in the field of engineering, involving:

a) Personalized professional information and counseling to determine the need and level of training and training of the target group according to the identified needs of the potential employers;

b) Providing personalized training services supporting the package developed under SO1;

SO3. The use of innovative, modern elements, including IT and e-learning tools, in providing information, counseling and training services to the target group by developing an online platform with multiple functionalities:

a) Distance learning to ensure a uniform level of knowledge of people participates in the face-to-face training program;

b) Online counseling.

SO4. Increasing visibility with regard to the ever-changing professional skills required in the field of engineering, supporting the target group in better orientation and occupation.

Using the control degree model [2], the possible stakeholders of the project were identified. These are presented in Table 2.

<table>
<thead>
<tr>
<th>People or interest groups</th>
<th>What are they following?</th>
<th>Is the change positive or negative for them?</th>
<th>Predictable reactions</th>
<th>Ideas about how to get it done</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employers in the technical field</td>
<td>Highly trained workforce</td>
<td>Certain quality requirements</td>
<td>positive</td>
<td>Testing skills</td>
</tr>
</tbody>
</table>

The Gantt chart proposes graphical representation of the program of activities through which they can coordinate and monitor permanently. The chart indicates the duration of the activities carried out.
Experts in research and development, manufacturing or marketing from university can take successful solutions from other companies and implement them creatively in their organization. They will not find anything that others have discovered before, and will accelerate the development of creativity in society. [3]

3 RESULTS

Through the proposed actions, the project contributes to increasing human resource skills and adaptability to new changes and trends, providing them with information through customized courses in materials science, recycling, design, manufacturing and assisted engineering, ergonomics, IT, entrepreneurship, management project, technology, etc. The proposed project is relevant and responds to the needs of the target group because:

- Contribute to increasing the number of people in the target group who will benefit from qualifications, which implicitly leads to an increase in the number of training hours;
- Provides opportunities for promotion from lower to higher levels due to the professional skills to be acquired;
- Ensures the assignment of payroll groups corresponding to the work performed;
- Contribute to increasing the number of people who have a stable and sustainable job as a result of their assistance through information and counselling services.

The results, means of measurement, quantification by measurable indicators are presented in Table 4

<table>
<thead>
<tr>
<th>No.</th>
<th>Objective</th>
<th>Result</th>
<th>Indicator of achievement</th>
<th>Means of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SO1 &amp; SO2a;</td>
<td>500 people informed and professionally oriented</td>
<td>Share of long-term unemployed participants in certified integrated programs: 60%</td>
<td>Making individual counseling cards</td>
</tr>
<tr>
<td>2.</td>
<td>SO2c &amp; SO3a</td>
<td>200 people mediated</td>
<td>Share of people who have found a job within six months of participating in integrated programs - 13%</td>
<td>Individual mediation plans and the use of innovative ICT mediation methods</td>
</tr>
<tr>
<td>3.</td>
<td>SO2b &amp; SO3b</td>
<td>500 people selected for attending vocational training (initiation, training, qualification)</td>
<td>Number of training participants who have found a job within 6 months - 50 Number of participants in integrated programs = 500 Number of participants in training = 500</td>
<td>Application forms</td>
</tr>
<tr>
<td>4.</td>
<td>SO4</td>
<td>At least 50 actions of information on the project activities organized, emphasizing the benefits provided to the unemployed by participating in the flexible course program</td>
<td>Number of flyers and divided leaflets Number of radio spots broadcast, number of articles appearing in print and online</td>
<td>Contracts concluded with the media (radio, print media)</td>
</tr>
</tbody>
</table>

4 CONCLUSIONS

The project developed was in line with the European Employment Strategy [4] and the Growth and Jobs Guidelines, ensuring through its activities:

- Increase labor market participation, reduce structural unemployment and promote job quality;
- Develop a skilled workforce that responds to the needs of the labor market and promote lifelong learning;
- Improve the quality and performance of education and training systems at all levels and increase tertiary or equivalent education.
Thus, all three interrelated strategic objectives of the revised European Employment Strategy: full employment, quality and productivity of work, which are also reflected in the National Employment Strategy, are addressed. Targeting the acquisition of new skills for unemployed and increasing employment, the project is also aligned with the 2020 Strategy's priorities targeting a 75% employment target for the 20-64 age group.

REFERENCES


