

Development and Project Team Building and Its Impact on the Increase in the Market Value of the Project

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Abstract: In this paper we confirm that human resources have the most crucial impact on the project implementation. At the same time the staff of the project depends on the internal and external environment of the organization. Despite the large number of tools, mechanisms and processes in human resource management the matter has not lost its relevance and is interconnected with other areas of management in project activities. In this paper, we highlighted one of the actions in the formation of the project team, the assessment of each project participant. We show our developed model and explain that it is not the uniqueness of the idea that brings the core value to the project, but namely it is the human resources. This article will be interesting and useful to the theorists, who study the impact of various issues on the circumstances of the successful implementation of the project, as well as the practitioners, who study practical tools in project management.

Key words: human resources; human resource planning; project team development; project team management; project activities; project organization

JEL codes: M20

1. Introduction

Interaction between labor productivity growth and increasing needs resulted in a saving of time in the process of development and acceleration of the process. Now more than 50% of the economically active citizens of the developed countries (and in the U.S. more than two-thirds of the citizens) are engaged in intellectual work (Zinchenko, 2012). In the Kazakhstan model of economic development it should be noted, that in the long term, it is necessary to increase the role and importance of intellectual labor, which will promote the development of the manufacturing industry, and which in turn will lead to the increased interest and development of potential specialists of intellectual work. In this case, the constant stimulation of specialists training systems and scientific areas of the country will lead to an increase in intellectual activity of human resources.

Enterprises are interested in productive professionals, the level of education and work experience can serve

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as indicators of this productivity (Gennard, 2009). This is the case of office work that requires intellectual labor for solutions of variety of tasks and record keeping. Despite the fact that a human can be replaced by the robots and computers in various sectors and industries, the human has been and will remain a priority business unit in the organizations. Along with the development of science and technology, management develops and offers market companies to use a variety of tools and techniques to optimize the management of human resources. With the introduction of the concepts of management and project management, many management processes are becoming more efficient (Lock, 2003). This allows using human resources with a low human potential.

Global trends confirm the relevance of this study, where the growth of intellectual capacity, in turn, accelerates the development of technology and increases labor efficiency (Stonehouse, 2004). Offering a model of subjective evaluation of human capital in the process of the project team formation, and analysis of the impact of the project team on increase in the market value of the project, we wanted to show that in the market conditions, it is necessary to consider the actual indicators of human activity. Successful implementation of the project is above all, the successful activities and achievements of the project participant. In market conditions, the cost of the project can be enhanced not only by the objective market factors, but also due to the subjective assessment of the human capacity of the project team, as well as the effectiveness of education and professional development during the project implementation.

The main aim of the work is to search the impact of the project team development on the market value of the project in the innovation economy.

2. Assessment of Past and Current Research Devoted to Development of Human Resources

In the study, we draw attention to the concepts of human potential, but not as an object of study, but as a factor of influence on the development of the team.

2.1 Economic Man

In turn, the concept of human potential, namely, its development, has been incorporated in the works of F. Quesnay, Marx, Pareto, W. Petty, David Ricardo, and Adam Smith. They analyzed human interactions through the categories of rationality within the concept of “economic man”, which was subsequently developed in the theory of “human capital” by T. Shults and G. Bekker. Modern trends show that the concept of “economic man” is losing its relevance, as human environment is changing dynamically, and is opening the possibility for a person to become a separate object of the economy. In this approach, scholars such as Max Weber (1978), Durkheim, and George Zimmel developed a comprehensive analysis of the nature of human resources. These days, many foreign economists such as David Collins, Mescon (1988), S. Choudhary, R. G. Ehrenberg (2009), and others, are actively exploring the characteristics of a person as an object of economic relations.

2.2 New Economic Man

Along with analysis of the human potential in modern economic science one of the most important problems is technological change. The place and importance of technology in the evolution of social and economic relations are considered in works of such foreign scholars as F. Machlup, S. Sato (1995), D. Bell (1999), D. Hamilton, T. Umesao, H. Kumamoto (1995), J. Stigler (1971), A. Toffler (1984) and L. White.

In our work we focus on this area of the management and development of the project team with the ongoing project activities and its impact on the overall improvement of human capital. In the macroeconomic aspect, we

expect an increase in the overall level of human capital and scientific potential. There are also issues about the priority development areas. Here we are talking primarily about the importance of human capital in the success of the project, but pay attention to the technological tools that contribute to the successful conclusion of the project, regardless of the level of human resources capital.

3. The Study of Trends in the Development of the Global Labor Market

The impact of economic relations globalization directly affect the world labor market. In pursuit of innovation, it is necessary to control the growth of human capital, which in turn is the driver of innovation.

The world has been faced with the “urgent need” to create 600 million new productive jobs in the next decade, to have sustainable growth and preserve social cohesion (ILO, 2012). Human resource management is included in the management area based on 3 levels:

- At the state level, international level
- At the enterprise level
- At the human level

With the development of innovative economy of human resource management is in the domain control of the human him/herself.

3.1 Quick Solutions

Despite the fact that most countries having survived crisis, have worked and are working on programs for employment, the overall picture has not changed and today the number of unemployed worldwide remain virtually unchanged. This is reflected in terms of employment share in the total workforce. In this case, we understand that the measures taken by the State are not effective. Market relations have their own laws on the demand for human resources, which are contrary to social policy. On the other hand, the State as a subject of market relations can lead employment policy, not contradicting the market relations.

One of the unfortunate trends we observe is that an increasing number of unemployed people are with higher education. In the future, this could affect the deterioration of indicators such as the level of prosperity, social equity, and etc. We cannot refer to the effective management of the process, when the government puts a priority number of jobs created as part of the project implementation.

3.2 Transfer of Human Resources

In the innovation economy an important role in the development of access to the labor market are a number of tools (Ribas & Soares, 2011). Thanks to modern communications, we see a trend for a transfer of human resources the majority of developing countries, such as India, China offer cheap competitive workforce. All this is made available by the development of information and telecommunication technologies. The authors propose the scheme of interaction and development of control systems and human resource management at two levels: at the international and the local. The authors propose a model (Figure 1) of interaction and development of control systems and human resource management at two levels: at the international and the local.

In this model (Figure 1), the pointed out elements contribute to the monitoring and provision of human resources onto the labor market. In essence, the modern world needs integrated human resource management systems. Enterprises, in implementing joint projects, can make a transfer of labor, interchange personnel and use the access to databases, monitor and evaluate proposals and evaluation of personnel.

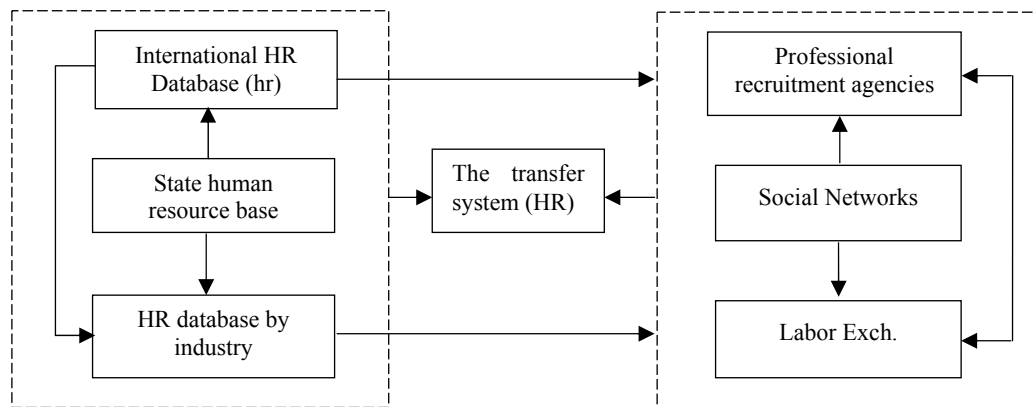


Figure 1 Model of Interaction between the System of Regulation and Human Resource Management

4. Human Resource Management in Innovative Projects

In various projects, the issue of project participants is approached from two sides, the number of required human resources or their quality. It should be noted that the quantitative indicators can include qualitative characteristics of the project staff. One of the standard measurements in the planning of the project is the measurement man/hour or man/day, etc. This measurement includes the level of wages in respect of the units of time. This principle greatly facilitates the planning and implementation of the project, at the end, we see the costs (wages fund) and the required time spent on the project. The essential problem in this case is to determine the quality of project personnel.

4.1 Human Resources as a Basis for Competitiveness of Project Organization

In market conditions, increased competitiveness can be considered as the established system of project management, as well as the quality of human resources, in other words, the project team. It is typical to develop a team for innovative projects, moreover, develop through innovative programs (Huemann et al., 2007).

Activities of companies organized under the project principle, have “starvation” of personnel, since the significant stages of ongoing projects are unusual and creative (Blair, 2005). It is impossible to assess the potential of a person, since when performing the project activity it is important to perform nonstandard tasks encountered by the organization for the first time. This raises problems in the planning and management of project costs, and the encouragement of performers. How to evaluate the effectiveness of the project and create a portfolio of projects for the future?

Examples of design organizations, as mentioned above, are: Research Institutes (RI), Design Bureau (DB), the Design Institute (DI), company developers and software suppliers, design companies, marketing and PR-agencies, auditing, valuation, consulting firms, and others.

4.2 Products of Project Organizations and Their Development

In all of these cases, the “product” of the organization is the result of project work: a report or an article on the results of research, technology, design and/or construction documentation, prototype, software, advertising campaign, professional judgment, a report with recommendations, etc. In fact food product-services of these organizations are equal to “air”, so in essence, the service is not material and is not palpable (except for developmental solutions), in connection with this, the cost of the “product” by 80% consists of the cost of maintaining the team.

The main issue in the development of human capital is to improve participants' knowledge of the project and the staff in general. Design organizations are not overburdened with work, and under other circumstances, the work load is standard. Basically, design organizations solve the nonstandard tasks of the project (Lakemond & Berggren, 2006). In this regard, it is increasing the need for unique abilities. These people either acquire the ability, given the experience in the implementation of projects, or have them, given the natural ability (which is a rare occurrence.)

The most effective is the use of the model skills and abilities as a managed development activities of the project team (Josler & Burger, 2005). As discussed earlier, there are quantitative indicators of the level of development of human resources such as:

- Experience (number of completed projects)
- Skills/capacity (scale of completed projects or their parameters: project budget, the duration of the project, the role of participation in the project)
- Knowledge (whereby a set number of workshops, seminars, received certificates, diplomas, etc.), the significance of the coefficient of knowledge is taken into an account.
- The most important qualities of project workers in the “new economy” include:
 - high ability and motivation to learn
 - basic skills (ability to work with information, computer literacy)
 - ability to manage communication (ability to articulate ideas and listen)
 - adaptability (creation, formulation and problem solving)
 - self-improvement skills (motivation, goal setting, personal development)
 - group effectiveness (interpersonal skills, negotiation, and teamwork)
 - skills to influence others (organizational effectiveness and leadership).

5. Evaluation of Human Resources When Forming the Project Team

Determining the assessment of human resources includes several steps:

The step of determining the coefficient of the influence of the role in the project. According to the author there are only four roles: the performer (assistant), manager, analyst, and project manager. Each role has a weight criterion, which is set (given), depending on the company's needs and requirements and the sum of all the criteria must not exceed the number of 10. With participation in several projects in various roles, the coefficient is averaged based on the number of roles.

The step of determining the coefficient of knowledge. It is similar to the first step, but here the limit in the number of assessment criteria is not considered, and the importance of the criterion is taken into account. That is, regardless of the number entered criteria, the amount shall not exceed the value of 1. Then the product of the number of data and the level of criterion are calculated and the results are added. We get the coefficient of the level of knowledge.

Next, we define the scale of the projects. In this aspect, we consider the total of all project budgets and the amount of time spent on the project, the actual time is considered, by day.

The final stage in the evaluation of personnel is realized by the following formula:

$$H_r = \left(\frac{R_c Q_p}{B_{\frac{b}{t}}} \right) K_c \quad (1)$$

R_c - coefficient of influence of the role in the project

Q_p - the number of projects

B - design resource

b - the total cost of the project

t - duration of the project

K_c - coefficient of knowledge

As a result of the solution we obtain the participant's assessment.

$$0 \leq n \leq 0.1$$

A participant is rather valuable for the future of the organization or the project needs, no further development of the skills necessary.

$$0.1 \leq n \leq 1$$

A participant has good potential for development and with each subsequent experience and training improves his or her ability, but of course transferring the management of the strategic areas in control is risky.

$$n > 1$$

A participant is not interesting for the organization or participating in the project is under a question. In graphic form, the method of evaluation is as follows:

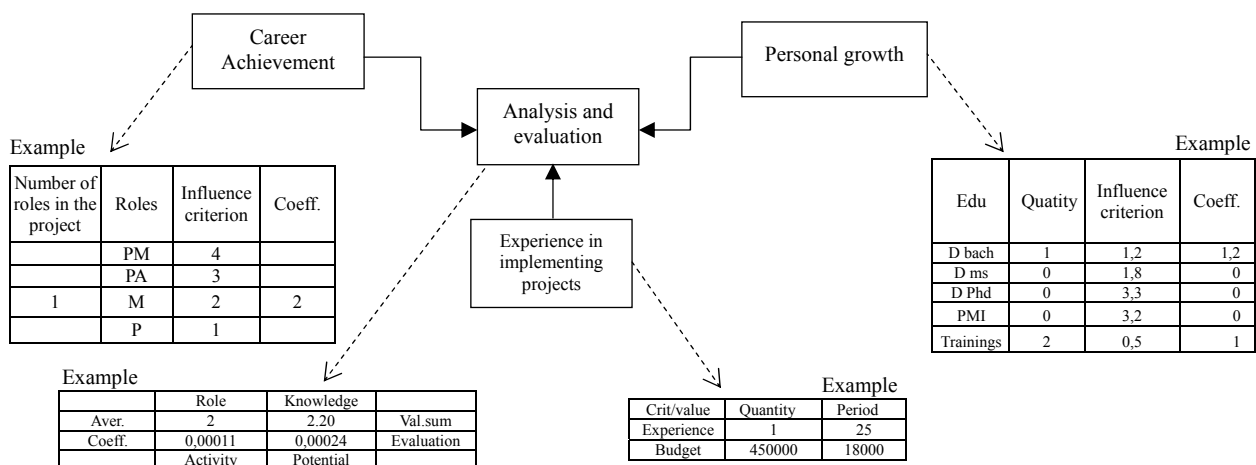


Figure 2 The Model of the Evaluation Process of Human Resources in the Formation of the Project Team

These results are based on a quantitative method; this approach is easy to use in large projects with an expected large number of participants in the project. Qualitative analysis of the participant or a decision on the appointment of the management roles, require a deeper psychological methods of personality assessment. As for the indicators of quality, it is impossible to take into account, or in generalize forms of data by various parameters. In our opinion, the expert evaluation is best tool applied in risk management; data for the assessment should be taken only by the field method, that is, in-depth interview. The method of expert evaluation will help solve problems of any kind of decision-making on issues of human resources, or a project team. In our understanding the quality indicators are: the success of implemented tasks (post-project activities), the quality of the implemented project (product), the quality of the planning and execution of the project (time, number of tasks/steps, resources).

6. The Development of the Project Team and Its Impact on the Market Value of the Project

6.1 Development in Modern Conditions

In modern conditions, it is becoming the norm for human resources to continuously grow professionally with the help of variety of training courses, workshops or development of additional occupations. Such professional growth characterizes a person who wants to retain achieved career positions. This is a psychological barrier, on the one hand human resources “say”, why spend money, give us a bonuses and we will be able to educate ourselves, on the other hand, training impacts the improvement of the efficiency of labor and improvement of the quality of human resources capacity of the organization, which is of the interest to the employer. Typically, the design organizations approach this issue systematically, or planned.

The scientific and technical progress is possible to have “moral deterioration” of human resources, it is an inescapable fact, and if previously this concept was rarely resorted to because science and management techniques have evolved slowly, but now this “deterministic” concept applies to all spheres of human activity.

In terms of market value of the project is constantly changing depending on the influence of external and internal environment (Huang, 2011). We must consider that the present conditions of the environment very strongly influence the development of human resources. Previously, the authors presented a model of the influence of the environment on the project, but now we must keep in mind that, the external environment affects the internal micro-environment of the organization. The project cost includes all expenditures associated with the implementation of the project. This definition can be considered as the nominal value of the project. The actual cost or market value, if it is a market-based project, is an estimate based on market attractiveness, the face value and the quality of implementation (in this case, the participants of the project).

6.2 Capital of the Project Team

The project team is a system that needs to be constantly maintained, raising the capital. The term “human capital” in this case is timely and relevant. During the implementation of the project, human resources need to be constantly trained, because of the uniqueness of the project. The main elements of human capital in project activities include:

- Education capital (knowledge-general and special);
- Skills capital (skills, experience, ability, knowledge);
- Health capital (physical and psychological);

There are a large number of works on the subject and settlement system of the human capital, both for businesses and for the country as a whole. But in this article we do not raise the issue of evaluation of human capital, since this concept identifies and evaluates a set of different parameters. As described earlier, the evaluation of human resources in the project has some special moments, such as a person’s actions in uncertainty, critical thinking, and etc.

The participants of the project should also include entrepreneurial skills, the importance of which is undeniable in the social production. Entrepreneurial skills do not only include knowledge and skills but also the talent of doing business, economic intuition and luck.

To date, the cost of the project includes all the assets and expected income in the “post-project” period. There are all the necessary methods of calculation of coefficients for assessment and analysis. In our case, we do not introduce calculations of international standards which are already being used; we offer a system of different

calculation and the possibility to integrate this system into the calculation of the market value of the project.

6.3 Assessment Model of the Project Team

In general, the calculation model includes three main blocks: the classification of the project, the project team and an analytical unit. At the entrance there is information on human resources, which is the estimate (see above), further information on the project, which is estimated on the classification of the project itself (the level of complexity, scale, the direction of the project). The analysis process includes the calculation and derivation of coefficients. On the way out, we get the coefficient (percentage) of increase in the cost of the project. This factor increases the nominal value of the project; this figure can also serve in the analysis of the project team as a whole. Since the main factor of the calculation is the indicators of each project participant.

$$C_p = \frac{B_p + C_p + T_p}{B_{b/t}} \quad (2)$$

B_p - the coefficient of the scale of the project

C_p – coefficient of difficulty of the project

T_p - the coefficient of the level of adaptability of the project

$B_{b/t}$ - design resource

The coefficients B_p , C_p , T_p are calculated by the Formula (3)

$$N = \frac{L_p}{u_{H_r}} \quad (3)$$

This formula uses the arithmetic mean of the estimates of all the team members and the coefficient on the classification of the project. Each of the design has its own estimates of the coefficients of the classification of projects.

When conducting experiments in the laboratory, we saw the basic tendency that when you set a larger budget for the investment project and a small amount of time for its implementation, the boosting ratio in the cost of the project tends to zero. This can be explained by the fact that if the project is implemented in one day, then the application of effort is zero, or simply a mistake, thus proving the efficiency of the calculation and assessment.

Many researchers, theorists and practitioners in recent years have noticed tendency of an increasing difference between the book value and the market value of the enterprise or project. Among the main reasons for this, are increasing role of intellectual capital in the project cost.

According to leading economists, the benefits that can be achieved by using the financial resources are currently exhausted. Asset management, allowing companies to achieve economies of scale, is not the source of their competitive advantage now. At best, it provides a high return on investment. Judicious use along with financial assets of non-financial capital, bring super profit, which also provides the company with a dominant position in the market. So the competition is increasingly turning to the intellectual component of the business and the project. Intellectual capital is the main “potential value” of the project in the modern economy.

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