CONTRIBUTION AND ADVANCES OF THE KEY PERFORMANCE INDICATORS IN HUMAN RESOURCES MANAGEMENT

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Abstract- It is highly important to develop the system to monitor at least available segments of the organization. This aspect is becoming vital for organizations involved for use of intellectual activities. It relates for the structures covering engineering spheres providing services with a wide engineering disciplines. One of the most important point of monitoring system development concerns to the organization creating philosophy of leaning process. There is antagonist environment between business with the target of financial benefits and learning process, which is orienting to the human resources management by use variety of sources for personal development and improvement. This paper has dedicated of the key performance indicator (KPI) definition for the engineering company related to the implementation of human resources activities in management process. The main attention was given to the selection appropriate indicators in development of KPI. It is key instrument in management process working with staff in a wide areas of human resources management. It has to be very important instrument in observation and monitoring process of resource definitions.

Keywords: Key Performance Indicator (KPI), Human Resources, Management Process, Observation and Monitoring.

I. INTRODUCTION

As far as identified a KPI are indicators, which reflects how effectively the organization moves toward to achieve the purposes and aims. Hence, for KPI productivity, pursued aim should be accurately clear and indicators characterizing efficiency of expected for organization achievements are defined.

The process of management of personnel is very dynamic and sensitive as it is directly has relation to the human and human behavior, which is complicated issue of management. From this point of view, despite the aims laid down for HR department staff, definition of indicators of efficiency is highly complicated matter. For many departments efficiency of indicators is focused on financial aspects, however for such specific direction where work is connected on a straight line with the people,

the factor is affected indirectly (Company Staff needs satisfaction). So, what indicators are productive for a staff department is the vital question of human resources management process?

II. DIVERSITY OF KEY PERFORMANCE INDICATORS

The fact is that there is a highly need to select right indicators for further successful human resources management. Table 1 reflects main selected for description of the process of indicators for management of human resources.

Table 1. KPI for HR management process

KPI	2012	2013	2014
Company staff needs satisfaction	100%	100%	100%
HR obligations execution quality	86%	80%	92%
QMS tasks	100%	91%	100%
Training efficiency	86%	92%	90%
Employee turnover	29%	20%	22%
Quality of personal registration	1	2	1
Speed of vacancy coverage	32	30	28
Quality of staff selection	96%	97%	99%
Usage coefficient	54%	77%	83%

It can be assumed that one of the main indicators influencing an overall performance of the company as a whole is:

A. The Factor of Engagement

On the basis of this indicator can be made possible take the decision on necessity of hiring or dismiss of company employees. The number of required employees is defined by the content of work. An engagement of the personnel also depends on available content of the work. Therefore, definition of the number of necessary employees is sufficient to know engagement of personal to project execution process. There is deficiency of personal if it is above a certain bounder threshold workers do not suffice (they work "on deterioration"). It demands to expand number of employees. Indicator calculation is based on data on planning of working time calculated over a certain period and actual fulfilled time in the period:

$$FE = A / C \tag{1}$$

where, FE is factor of engagement, A is actual worked time for the reported period, and C is calculated working hours in the period.

During the analysis of factor of engagement as KPI segment, there is considered its tendency concerning passed years, analyzed how correctly had been planning realized which have led to deviations if those were happened. Depending on capacity of engagement of the company staff as a whole the company put the target for each year. Whereas it should be considered of specificity of factor of engagement, at definition of targets such factor as a stock of resources on cases of unforeseen situations that the personnel should not be excessively engaged. It can affect as on their physical, and a moral condition that will undoubtedly affect quality of work and loyalty of the personnel to the company.

B. Staff Selection Quality

Efficiency of the staff selection is defined how is good (rationally, economically, etc.) organization/company uses own resources for this procedure and can be perceived differently - depending on circumstances and condition of the organization/company. Besides it, the head of organization/company and the human resources (HR) manager evaluate selection procedure differently. From the point of view of HR Manager it is satisfaction of requirement of the Manager in special skills, knowledge and a certain kind of works. HR Manager is facing the following problems:
- to find the personnel meets company needs;
- to keep within the minimum budget (the scale of the salary);
- to observe demanded terms (the employee should be employed and ready to work in time performing responsibilities within certain time);
- to provide demanded quality.

The concept of quality is subjective enough, but under demand of marketing, it should correspond to expectations of the client, in our case - the Manager.

An evaluation process of the applicant usually occurs during the first interview. The issues of the price or terms of selection fade into the second place if the head is satisfied by quality of nominee. In some cases company is hiring the people do not meet existing requirements. Sometimes the employee successfully develops and finally justifies heads expectations. In some cases the company has to accept those who obviously does not meet the company expectations for the reason of lack in the market of qualified specialists which limits selection opportunities for some positions.

Therefore, for definition of quality of staff selection it has been taken for a basis quantity the person from among accepted which have passed a probation period. Interviews and a tentative evaluation cannot be guarantee 100 percent "right" result. It is quite possible the candidate who has proved to be shining at selection stage, will perform lowest results in project execution and other areas of company contributions. Thus, the determination of the quality of recruitment is defined as follow:

$$QSS = N / N_{pl} \qquad (2)$$

where, QSS is quality of staff selection, N is Number of passed probation period current month, and N_{pl} is Planned number of employees, whose trial period should come to end.

C. Speed of Vacancy Coverage

In each company depending on a sort of activity and the procedures accepted by the company, the recruitment process passes in the various ways: via recruitment agencies, announcements in newspapers or other sources, on web sites, at the expense of own database on resources. Accordingly, each method demands certain time for closing of vacancies, which reflects the following:
- The offer in the market;
- Demanded qualification;
- Specificity of organization.

Therefore, threshold values for the various companies can be different. The quantity of the spent days on vacancy closing in this case also can be demonstrated as KPI:

$$D = D_2 - D_1 \qquad (3)$$

where, D is speed of vacancy coverage, D_1 is the opening date of vacancy, and D_2 is the closing date of vacancy.

D. Quality of the Personnel Record

It is obvious that the correctly organized company operation is a way to prosperity. Professionally selected staff and maintenance of good environment for employees activity is more than half of business achievement.

From the point of view of official documents and definition, the personnel record is completely documented movement of the personnel of the company, which is connected to the registration of relations between the employee and the employer. This sphere includes all aspects starting from the position of hire up to dismissal.

Without employees any organization cannot be operate and function. Any activities of organization starts from the process of hiring of employees who will engaged the process of execution.

Activity of responsible people for personnel hire decisions are always documented, because at any stage of monitoring and observation first of all, needed to be reached to the documents on employees' progress.
Company needs to develop the certain list of necessary documents. This list does not depend on quantity of employees and it is defined in norms of the legislation and the Labor Code of country, and requirements of Quality Management System.

An accurate and transparent management of the personnel recording documentation system allows making operatively all documents, which are connected with this field of activity: employment, dismissal, change of personnel data, schedules of works, the list of staff and etc. Indicator of quality of conducting the personnel account is the quantity of errors of the audits revealed during carrying out of audit by Auditor Company.

E. Employee Turnover Rate

The main reasons for staff turnover can be defined as following:

- Material (noncompetitive rates of payment, unfair structure of payment, unstable earnings);
- Organizational (the schedule, a mode, working conditions and environment mismatching expectations of the employee, absence of possibility of career growth, improvement of professional skill);
- Interpersonal (relationships with a management and colleagues);
- Insufficient level of professionalism at a high average level of the company.

Employee turnover rate - ratio of the number of the company dismissed staffs which have left the company for the reasons of fluidity (at own willing, for absenteeism, safety precautions infringement, autocratic leaving, etc. reasons not caused by industrial or state authority requirement) to average number for the same period of time is the coefficient which can be calculated as:

$$ETR = N_d / N_{av} \tag{4}$$

where, ETR is Staff turnover rate, N_d is number of dismissed for the period (and working more than 3 month), and N_{av} is average number for the period.

A KPI demands the deeply analysis, as the indicator for a year where from the first view it can be seen very critical. However, in detailed research by selected criteria (the number of the employees who have worked in the company a certain timeframe) probably to clear up and take necessary measures for minimization of an indicator of turnover.

F. Learning Efficiency

Up to date any more or less far-sighted manager gives special attention to training process of the personnel. It is not surprising that considering prompt development of approaches to a business management, occurrence of budgeting, quality management system and the systems of the balanced indicators etc. do not lag behind an industrial technologies demanding from technician personal of company highly qualified knowledge and experience of use of a new equipment and technologies. Systems of advancement of the goods on the market and sales develop even more promptly. All indications do not provide other chance to the managers except preservation of an occupied share of the market and finally all business as increase of educational level of the subordinates. This problem has a significant urgency in the conditions of obvious backlog of educational programs of an educational institution (both secondary and the higher) from dynamically varying market requirements.

Increasingly, expenses for vocational training are considered as capital investment in development of the personnel and perspective development of the organization. These investments should bring back in the form of increased efficiency of organization activity.

Within the limits of definition of staff learning efficiency, KPI for the company as a whole is efficient which identifies a share of employees' number who accept the knowledge was useful to the number of employees, passed training for the same period of time as reflected below:

$$LE = N_2 / N_1 \tag{5}$$

where, LE is Learning Efficiency, N_1 is Number of staff trained in the previous reporting period, and N_2 is Number of staff who the received knowledge was useful in work.

It is a very difficult task, to bring the indicated indicator to ideal value. Therefore, by company management on the basis of results for last year are defined target values for the future. Hence, for each organization defines individual threshold values.

G. Indicators Based on SMART Requirements

Organization certified on Quality Management System has to be developed quality objectives for each employee. It can be integrated and developed for the frame of organization as a whole. A requirements of the QMS standards demand to meet taken quality objectives to SMART system. It relates for each obligated quality objectives of employee as well as for organization.

It is our assurance to use quality of objectives of organization staff as an indicator for use of KPI developments.

H. HR Obligations Execution Quality

HR department are engaged not only for a personnel records, in many succeeding companies the duties of the department is much wider covering large scale duties and responsibilities. It embraces of carrying out of staff appraisal of the company, organization and evaluation of trainings, seminars, performance of tasks, as well as providing of the necessary information, requested from company management. Such problems should be executed in time and correspond on quality to expectations of clients (in this case management of the company). From this point of view, evaluation of the performance quality of similar works will be productive KPI of HR department work. The evaluation can be conducted based on Customer feedback, received from clients:

$$EQ_{HR} = N_c / N_t \tag{6}$$

where, EQ_{HR} is HR obligations execution quality, N_c is Number of works executed without mistakes for the certain period (the received positive responses), and N_t is the total number of requested works for the given period.

It is desirable to calculate indicator expediently as on each employee of department separately and for department as a whole. It is necessary to conduct lessons learned within the department based on the received results having done the analysis of the revealed errors to improve the quality of work.

I. Company Staff Needs Satisfaction

There are various ways to satisfy the requirements of the company in the personnel: at the expense of own reserves, with the help of recruitment agencies, as well as through creation of own database of potential candidates. Obviously, the reference to recruiting companies for selection of the necessary personnel has the advantages and lacks. To lacks of work with the similar companies are: The big material inputs for the organization, discrepancy of the selected candidates to specificity, culture of the company.

Advantage: shorter time to cover arising requirements.

Hence, the covering of requirements of the organization at the expense of own base is more profitable and can serve as KPI. It will be calculated as follows:

$$CSS = RE_{id} / RE_t \qquad (7)$$

where, CSS is Company Staff needs satisfaction, RE_{id} is number of recruited employees at the expense of internal information database for the certain period; and RE_t is total number of the recruited employees for the given period.

The result of selected indicators for calculation and performing KPI for HR department with purpose of observation and monitoring of the management process of company related to the human resources activities is shown in Figure 1.
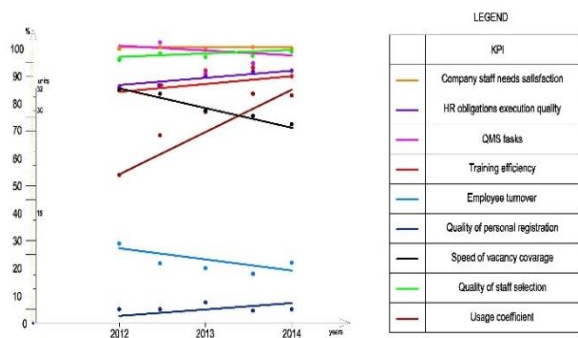

Figure 1. Performance of indicators calculated for KPI of HR management.

III. CONCLUSION

This paper touches very sensitive aspect of organization management process as development of KPI. There is following approaches have been undertaken in the paper:

1. It has been demonstrated KPI development for HR activities of organization;

2. It has been reflected diversity of use special selected indicators for KPI development;

3. Uniform and multiuse of KPI for any kind of business for organizations for a wide areas of activities

4. An ability to simplify of measure and calculation of indicators for organization KPI development.

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BIOGRAPHIES

Nigar K. Almasova-Huseynova was born in Baku, Azerbaijan on March 20, 1990. She graduated in Bachelor and Master degrees at the Economic Science from Azerbaijan State Economic University, Baku, Azerbaijan with specialization of international business. She has been employed for Encotec Company, Baku, Azerbaijan as engineering and consultancy technologies from 2013 to HR department for a position of HR specialist. Her main activities within the company frame are embracing analyze and processing of initial information of time control report and management and cumulative report development, staff appraisal process and staff skill map matrix update process, impact to the HR department QMS process.

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Rustam B. Rustamov was born in Ali Bayramli, Azerbaijan, on May 25, 1955. He is an independent expert on Space Science and Technology. In the past, he was in charging of the Azerbaijan National Aerospace Agency activities as an Acting Director General. He has mainly specialized in space instrumentation and remote sensing and GIS technology. He has graduated Ph.D. at the Russian Physical-Technical Institute, S. Petersburg, Russia. He was invited for the work at the European Space Agency within the Framework of the United Nations Program on Space Applications at the European Space Research and Technology Center, The Netherlands. He has appointed for the United Nations Office for Outer Space Affairs Action Teams (member, Vienna, Austria), United Nations Economical and Social Commission for Asia and the Pacific (national focal point, Thailand), International Astronautically Federation (Federation's contact, France), Resent Advances in Space Technologies International Conference Program Committee (member, Turkey). He is an author of 11 books published by the European and United States famous publishers and more than 100 scientific papers.