Performance Management of Academic Staff: Case of Georgian National University SEU

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Abstract:

The paper deals with the important issue in management of academic staff at universities that is performance management. Particular case of Georgian National University SEU is discussed. Importance and peculiarities of the performance management at higher education institution is showed, relevant literature is analyzed, mathematical model for measuring performance indicator is constructed and relevant variables are revealed. These variables are introduced based on the priorities of the program and the goals and objectives of the university in general. Model is being implemented at SEU and all the academic staff members and administration are involved in it in order to clarify aims of establishing performance indicator and create supportive organizational culture for performance management process to be successful.

Keywords: performance management; performance indicator; academic staff; mathematical model.

Introduction

Managing performance of academic staff has always been crucial for achieving higher teaching standards, meet the demands of contemporary developments in academic field and prepare qualified graduates who will be competitive on the market. All of these together contributes growth and development of higher education institution (HEI). For this aim to be achieved clearly defined objectives, supportive organizational culture and relevant sources of information are needed. Performance management system (PM) in HEI must encompass all the area of activities of academic staff including teaching, research, publishing and etc.

Aguinis and Pierce (2007) describes PM as a "process of measuring and developing the individual and the team performance". PM process can be conducted considering behaviors of workers and the way they complete work and/or based on the actual results i.e. outcomes of employees' work.

The process of PM involves defining clear goals and respective plans, monitoring of implementation of designed plans, receiving feedback on employee performance, assessing the work done by the employees and implementing remunerating programs for successful performers. The process doesn't end with remunerating employees. Corrective measures has to be taken in order to improve performance of both successful and unsuccessful workers.

In order to implement successful PM process in HEI relevant performance indicator (PI) must be elaborated. In the paper such indicator is proposed by the author based on the specific features of Bachelor's Program in Management at Georgian National University SEU. The paper contributes to the study of PM process implementation at HEIs by providing evaluation model of academic staff with the relevant variables and has practical implications enabling program managers or quality assurance departments at HEIs to improve performance of academic staff within their organizations.

The paper discusses the essence and importance of performance management, reviews relevant literature, defines conceptual framework of PM, proposes mathematical model for calculating PI and relevant variables and concludes with certain recommendations.

There are several approaches regarding performance management process in terms of frequency. Based on the specificity of HEIs we propose to conduct performance management process twice a year i.e. analyze results of the PI at the end of each semester. Results generated by the PI model will serve as a basis for drawing relevant recommendations for academic staff and take corrective measures. Before each consecutive semester, academic staff will receive suggestions for developing their competences and individual action plan.

In order to implement performance management process, set of relevant criteria must be defined based on which the work and progress of academic staff will be measured. Respective indicators that must satisfy SMART principles should measure each criterion. More Specific, Measurable, Attainable, Relevant and Time-bound indicators will lead to more precise results of evaluation of academic staff. It is essential that performance indicators must correspond to pre-defined responsibilities of academic personnel. Also, there are certain criteria in the proposed model that are out of area of compulsory tasks that academic personnel have to accomplish. These criteria should also be included in the PM system, because there presence gives incentives to academic staff for the growth and development.

Effective performance management process assures that academic staff performs in accordance with the set objectives of the academic program and overall goals of the HEI. PM allows HEI to evaluate results of the teaching process, behavior of academic personnel and what is most important, their qualification.

There are also several approaches to PM in terms of stakeholders in charge of evaluating academic personnel. Some HEIs accept 360 degree feedback principle according to which academic staff is being evaluated by head of the program, students, quality managers, colleagues and other persons coming in contact with him or her. In this paper we support approach that excludes evaluations by the peers because of potential subjective bias. Evaluations by the students and administration are included in the model in a way that these two groups of stakeholders evaluate the same criteria in order to compensate possible bias from one of these sides.

PM system shouldn't be considered only as a way for assessing employee's productivity, rather it should serve as a powerful tool for employee motivation. We propose to group aims of the performance management system based on four managerial functions:

1.   Planning – Identify week areas of academic staff performance and plan trainings, workshops and desirable targets to achieve that will serve personnel development;
2.   Organizing – Use evaluation results for promotion or dismissal of the individual staff members, give more hours of lecturing to ones who outperformed others and in general, reorganize teaching process while giving priorities to top performer staff;
3.   Motivating – Use evaluation results to draw both financial and non-financial incentives; 4. Controlling – Identify deviation from the target results and make corrective actions; ensure that academic staff performance is aligned with the goals of the academic program and those of the HEI in general.

As any kind of evaluation system PM also requires relevant data sources. We consider that main sources of necessary data for PM in HEIs can be evidences of scholarly activities of academic staff, including conferences, trainings, seminars, workshops, publications on the one hand and the results of the student evaluations and administration monitoring, on the other hand.

Various authors have studied an importance of performance management and proposed certain measures to use in the process.

Mone and London (2009) found evidence for performance management to be a viable way for increasing engagement in organization. The authors propose to include trust building, empowering personnel, managing team learning and straightforward communications into the process of performance management for ensuring higher level of employee engagement.

Decramer, Smolders and Vanderstraeten (2013) focus on the alignment of features of performance management systems with communication and control issues in the academic unit. They adopted integrated approach to employee performance management in higher education institutions. Using data from the survey of 589 employees of a Flemish University they showed that higher satisfaction of academic staff with performance management leads to a better communication and higher level of control. The authors also showed that satisfaction of academic staff with performance management depends on the tenure type, implying that a diversified performance management system for academic staff should be implemented in universities.

Wang and Wang (2008) based on a survey of 103 Chinese firms showed that performance management was positively related to organizational performance and such relationship was stronger when adaptive capability was higher.

Haines and St-Onge (2012) in their study investigate the mutual influence of practices and context on performance management effectiveness. They surveyed 312 private and public sector organizations with 200 or more employees. The results of the study showed positive relationship between training and employee recognition on the one hand and performance management effectiveness on the other.

Walker et al. (2010) states that the aim of measuring performance is to improve performance and align measures introduced by the organizational unit with overall organizational goals. In their study they found that performance management is positively associated with organizational performance.

Brudan (2010) stresses an importance of performance management for supporting creation of a learning organization environment. Author discussed three emerging approaches to performance management: systems thinking, learning and integration and proposed integrated performance management model. The paper puts higher emphasis on learning and integration during the implementation and usage of performance management systems.

Turk (2016) suggests not to use students' evaluations of lecturers as a main indicator for remuneration systems, because of their possible subjective bias. Rather, these data should be

considered as one aspect in the process of academic staff evaluation and drawing directions for future development. Symbaluk and Howell (2010) who consider first impression, use of humor, appearance and personality of lecturers as very important factors affecting evaluations of lecturers by the students also support this idea. On the contrary, Igbojekwe, Polycarp A. and Ugo-Okoro, Chigozie P. (2015) state that research publications and paper presentation at conferences should be one of the academic staff performance indicator, but it is not so important as in-class effectiveness i.e. excellence in teaching. Hill, Y., Lomas, L. & MacGregor, J. (2003) consider students' evaluations and views on all aspects of their university experiences as an essential to the quality management in universities.

Seidan, and Sowa. (2011) state that individual performance management should be based on individual contribution to growth and development of the organization.

Daley (2002) stresses the importance of matching evaluation standards with organizational goals. Personnel evaluation process can't be successful without clearly defined performance standards which must be based on individual job description and requirements that in turn must be aligned with organization's goals and objectives. It is important to make these standards clear for all the members of the organization. Failure to align performance standards with the goals and objectives of the organization leads to poor satisfaction and morale of employees, misunderstandings and ineffectiveness.

Tilca et al. (2018) propose a model to measure the performance of human resources in organizations. In their study authors have defined evaluation criteria, the number of achievements of the criteria and the rate of appreciation. By multiplying the number of achievements of each criterion with the rate of appreciation authors obtained an evaluation of each criterion. By assigning each criterion with the rate of the importance in criteria, authors compute the value of importance rate of the evaluation of each criterion. In order to determine the performance of an employee, authors compute the weighted mean average of rate of the importance in criteria weighted by the evaluation of each criterion.

Ishak et al. (2009) grouped academic staff performance indicators into five groups: 1. Teaching and Supervision; 2. Research and Innovation; 3. Writing and Publication; 4. Consultancy; 5. Services to University. These groups of indicators are measured with criteria such as Implementation of syllabus according to schedule and plan, Publications in refereed international journals (academic or professional, Publication Research Book / Monograph, Translations, Co-Curriculum Involvement and etc. Respondents involved in the study were classified also in terms of their position, i.e. Associate professors, Principal Lecturers, Senior Lecturers, Lecturers, Tutors. Authors propose function of weighted sum of attribute preferences.

Conceptual framework

Based on the literature review importance and the role of performance management, common criteria for PM process and necessity for differentiated PM system were revealed.

In order to assure satisfaction of academic staff, students and administration with PM system, clear priorities with this system must be proposed. These priorities will serve as a basis for defining main variables based on which PM process takes place. Such an approach enables companies to integrate strategic objectives into PM system.

Measuring performance of academic staff requires singling out several areas of their works, groups of criteria, assigning weights to these criteria and drawing the model in which criteria will be incorporated as variables.

As for every process, implementation of PM undergoes several stages. We consider following stages within PM implementation process:

1. Identification of importance of PM process.
Current level of academic staff performance, satisfaction and motivation must be assessed in order to reveal existing gaps and show an importance of PM system implementation; 2. Defining concept of the PM system.
Objectives, criteria and measures are defined by the head of the program in cooperation with the quality assurance service at HEI. Relevant targets are set which will be used for comparison with actual results of performance. It is of utmost importance to set different targets for personnel working on different academic positions.
3. Communication with academic staff.
Before implementing PM system creating supportive organizational culture is necessary. Because of this, head of the program together with the quality assurance department has to discuss proposed PM model with academic staff. Aim, tools and potential impact of PM must be clearly understood by the academic personnel.
4. PM implementation.
Activities of academic staff are being monitored according to the pre-defined criteria and at the end of the semester, the data is dealt with relevant mathematical model that is also predefined in order to reveal overall score of individual academic staff member. These results lead to employee rankings.
5. Analyzing PM results and delivering feedback.
Comparison of actual results of PM against the pre-defined targets is made, existing gap is analyzed and plan for filling it is drawn. Individual approach is of utmost importance in this process. Only with individual treatment, we can achieve high commitment of academic staff to PM results and engagement in the development plans.
6. Redefining performance targets.
It is necessary to review performance targets periodically in order to achieve higher level of employee participation, engagement and quality of performance. In addition, initially defined targets may appear unrealistic and can be toned down.

Relevant variables

We propose to categorize variables for PM system into two groups. Variables in the first group are measured based on the actual evidences and don't have any kind of subjective character. Second group of variables include evaluations from the students and administration that is of course, based on the pre-defined measures, but still leaves a room for subjectivity.

First group

1. Literature: writing or translating a book (A category), composing a reader (B category), editing a book (C category);
2. Published papers under the name of SEU: international peer reviewed journals with impact factor (A category), international peer reviewed journals without impact factor (B category), local per reviewed journals (C category);
3. Conferences: International scientific and/or practical conferences abroad, including publishing of the article in the conference proceedings (A category), International scientific and/or practical conferences in Georgia, including publishing of the article in the conference proceedings (B category), local conferences in Georgia (C category);
4. Participation in trainings offered by SEU or other organization;
5. Involvement in the process of working on syllabuses;
6. Received grants: for writing or translating a book (A category), for a research project (B category), for participation in the conference (C category);
7. Membership of professional and/or academic associations;
8. Introduction a new teaching course that is accepted as compulsory or elective course within the program;
9. Average grade of students on final exams: 81-100 – A category, 61-80 – B category, 51-60 – C category;
10. Initiating and taking part in organization of out of class activities for the students: skills development (A category), public lectures (B category); field visits (C category);
11. Well-grounded initiative regarding program development.

Note that all activities covered by the variables must be relevant to the academic program. For example, if a reader composed by a lecturer is not necessary for the program, fits another field, or is made only for other university use it will not be counted in the evaluation process.

Second group (all the variables are assessed by the students and administration)

1. Expertise of the lecturer in the field
2. Explaining class materials clearly
3. Teaching process is being held in accordance to the syllabus
4. Interactive lectures
5. Time management skills of the lecturer
6. Availability for the consultations

As these variables in second group aren't equally important different scales of evaluation are used. First three variables in this group are evaluated on a scale of 1-5, where 5 stands for totally satisfied; 4 – satisfied; 3 – neutral; 2 – dissatisfied; 1 – totally unsatisfied. Remaining three variables are evaluated on a scale 1-3, where 3 stands for relevant, 2 – neutral, 1 – irrelevant.

Note, that the students and administration measure variables in the second group simultaneously and average score of their evaluations are assigned to the variable. For example, if students' evaluation for the expertise of the lecturer in the field will be 5 and administration's evaluation for the same variable will be 3 the score that will be assigned to this variable in the proposed mathematical model will be 4 (5 + 3)/2.

Score for each variable is defined in a following way: for the variables in the first group A category counts for 3 points, B category – 2 points and C category – 1 point; for the variables in the second group points on a scale of 1-5 and 1-3 are the same as scores for these variables.

Scores for the following variables will be either 1 or 0: membership of professional and/or academic associations, introduction of a new teaching course and well-grounded initiative regarding program development.

Effective performance management must also take past performance into account. That means that if for example, academic staff member receives a grant for a research project this should be considered in every evaluation since and until the grant project will be ended. This approach also affects on a motivation of academic staff to initiate research projects and get funded, as they know its long lasting presence in their evaluations. This is the same with the membership of professional and/or academic associations, introduction of a new teaching course and wellgrounded initiative regarding program development.

Variables related primary activities of the academic staff that is teaching have higher possible scores, because of their higher priority and relevance to the program. Evaluation of the lecturer by the administration happens by observing teaching process in class. For this, a head of the program and quality manager attend lectures of each professor twice a semester.

We propose mathematical model that is based on a work of Tilca et al. (2018), but instead of computing weighted mean average of rate of the importance in criteria weighted by the evaluation of each criterion we support computing simple sum of values of each variable that is calculated by multiplying weight of the variable by its score on a scale pre-defined as its measure and multiplied by the number of achievements where applicable. Hence it is necessary to predefine weight and score on a scale and observe number of achievements for each variable.

Finally, our mathematical model for computing PI will include 17 variables and have following form:

$$PI = \sum_{i=1}^{17} w_i \times v_i$$

(1)

Where, w_i denotes a weight assigned to each variable,

v_i denotes a value of each variable that is calculated by multiplying score (s) of certain variable

by the number of achievements (a) for this variable.

Rank of each variable (criterion) is defined by the administration, head of the program in our case together with the quality assurance department and the basis for this definition lies on the program goals and learning outcomes.

For assigning weights to the variables Rank Sum weight method (Stillwell et al., 1981) is used and the formula for producing the weights is following:

$$w_i(RS) = \frac{n - r_i + 1}{\sum_{k=1}^{n} n - r_k + 1} = \frac{2(n + 1 - r_i)}{n(n + 1)}$$

(2)

where, r_i is the rank of the i-th criterion, i = 1,2,...,n.

Rank order of our variables that describes the importance of the criteria and respective weights are given in Table 1:

Table 1. Ranks and weights of the model relevant criteria.

Rank	Criterion	Weight
1	Expertise of the lecturer in the field	0,111
2	Explaining class materials clearly	0,105
3	Teaching process is being held in accordance to the syllabus	0,098
4	Introducing new literature	0,092
5	Participation on a conference	0,085
6	Paper publication	0,078
7	Involvement in the process of working on syllabuses	0,072
8	Well-grounded initiative regarding program development	0,065
9	Average grade of students on final exams	0,059
10	Time management skills of the lecturer	0,052
11	Received grant	0,046
12	Introduction a new teaching course that is accepted as compulsory or elective course within the program	0,039
13	Interactive lectures	0,033
14	Availability for the consultations	0,026
15	Participation in proposed trainings	0,020
16	Initiating and taking part in organization of out of class activities for the students	0,013

| 17 | Membership of professional and/or academic associations | 0,007 |

If we denote value of each variable that is calculated by multiplying score (s) of certain variable by the number of achievements (a) for this variable by $x_1, x_2, x_3, \ldots x_{17}$ we get the following formula:

$$PI = \sum_{i=1}^{17} w_i \times v_i = 0.111x_1 + 0.105x_2 + 0.098x_3 + 0.092x_4 + 0.085x_5 + 0.078x_6 + 0.072x_7 + 0.065x_8 + 0.059x_9$$
$$+ 0.052x_{10} + 0.046x_{11} + 0.039x_{12} + 0.033x_{13} + 0.026x_{14} + 0.020x_{15} + 0.013x_{16} + 0.007x_{17}$$
(3)

As it was mentioned above, it is necessary to set different targets for the different academic positions. Considering relevance to SEU we single out four academic positions: professor, associate professor, assistant professor, invited lecturer.

For example, based on the job description of a professor at Georgian National University SEU and expectations of administration target score for professor can be look like:

Target value for each variable is defined based on the realistic expectations and maximum scores aren't defined as targets:

x_1- 4; x_2 - 4; x_3 - 5; x_4 - 1; x_5 - 2; x_6 - 2; x_7 ; x_8 ; x_9 1; x_{10} ; x_{11} ; x_{12} ; x_{13} ; x_{14}

2; x_{15} x_{16} x_{17}

- 2;   - 1;   - 1;   - 1.

Inserting these target values in formula (3) we get target score for professor.

$$PI = \sum_{i=1}^{17} w_i \times v_i = 0.111(4) + 0.105(4) + 0.098(5) + 0.092(1) + 0.085(2) + 0.078(2) + 0.072(1) + 0.065(1)$$
$$+ 0.059(2) + 0.052(2) + 0.046(2) + 0.039(1) + 0.033(2) + 0.026(2) + 0.020(1) + 0.013(1)$$
$$+ 0.007(1) = 2.42$$

(4)

Hence, 2.42 is a target score in the PM system for a professor at Georgian National University SEU.

Same calculations are made also for the academic staff on other positions. For associate professor target score is generated by defining different targets again, based on the job description and responsibilities stated in the contract for the associate professor:

$$PI = \sum_{i=1}^{17} w_i \times v_i = 0,111(4) + 0,105(4) + 0,098(5) + 0,092(1) + 0,085(2) + 0,078(2) + 0,072(1) + 0,065(0)$$
$$+ 0,059(2) + 0,052(2) + 0,046(1) + 0,039(1) + 0,033(2) + 0,026(2) + 0,020(1) + 0,013(0)$$
$$+ 0,007(0) = 2,289$$

(5)

Hence, 2.29 is a target score in the PM system for associate professor at Georgian National University SEU.

For an assistant professor we have following calculations:

$$PI = \sum_{i=1}^{17} w_i \times v_i = 0,111(3) + 0,105(4) + 0,098(5) + 0,092(0) + 0,085(1) + 0,078(1) + 0,072(1) + 0,065(0)$$
$$+ 0,059(2) + 0,052(2) + 0,046(1) + 0,039(0) + 0,033(2) + 0,026(2) + 0,020(1) + 0,013(0)$$
$$+ 0,007(0) = 1,884$$

(6)

Therefore, 1.88 is a target score in the PM system for an assistant professor at Georgian National University SEU.

For an assistant professor we have following calculations:

$$PI = \sum_{i=1}^{17} w_i \times v_i = 0,111(3) + 0,105(4) + 0,098(5) + 0,092(0) + 0,085(1) + 0,078(1) + 0,072(1) + 0,065(0)$$
$$+ 0,059(2) + 0,052(2) + 0,046(1) + 0,039(0) + 0,033(2) + 0,026(2) + 0,020(1) + 0,013(0)$$
$$+ 0,007(0) = 1,746$$

(7)

Therefore, 1.75 is a target score in the PM system for invited lecturer at Georgian National University SEU.

Conclusions

Paper introduces new model for measuring performance of academic staff that is based on a variables considered as relevant for the Bachelor's program in Management at Georgian National University SEU. The model is being implemented at SEU that opens possibilities for continuing of this study for the analysis of the first results of its implementation.

Target scores selected for each criterion is a result of previous observations on academic staff performance at bachelor's program in management at SEU and the goals and objectives of the program and university. It is also communicated with the academic staff in order to ensure clarity of the aim of PM process in general and importance of each criterion.

Effective PM reveals potential of academic staff for development and meeting long-term objectives of academic program as it shows strong and weak sides of lecturers clearly. It is particularly important because each of the employee can see his or her advantages and disadvantages compared to other staff members in the rankings. In this way decisions made by the head of academic program or faculty dean regarding assigning lecturers on teaching courses and transferring some benefits have objective basis. We assume that knowing criteria and indicators in PM system increases employee motivation to develop certain areas of his or her competences.

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