

MOTIVATION FOR SALARY INCREASE FOR TEACHERS DEPENDING ON THE QUALITY OF TEACHING AND RESEARCH RESULTS

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Abstract: In the world market, success is achieved by the countries that have better human capital and allocate sufficient resources for its reproduction. One of the results of the growing enrollment of many universities has been the need for additional qualified teaching staff and advanced training, which has led to the need to retrain existing teachers for staffing the growing number of higher education institutions. The first of the major success factors in this endeavor is to ensure that teachers are motivated to earn a relatively adequate salary. In recent years, a number of RA universities have successfully applied the method of salary calculation, which is based on the principle that a teacher (professor, associate professor, assistant, etc.) receives a salary depending on his category and workload (number of hours per academic year). Another important component of the assessment is the real involvement of the teacher in scientific activities and, based on this, a method for calculating the salary of a teacher is proposed, taking into account, among other things, his scientific activity. In order to encourage the scientific activity of the teacher, an indicator of the effectiveness of his scientific activity is introduced, the measure of which is scientific work during the previous (three to five) years.

Keywords: higher education, human capital, scientific work, calculation

1. INTRODUCTION

Human resources, unlike non-renewable natural resources, have the ability to reproduce and expand. Only a society built on knowledge, education is able to solve the socio-economic, political and other problems facing humanity. As a result, almost every country in the world is investing heavily in having educated, literate citizens. Only with the help of highly qualified specialists can the advantages of providing competitive goods and

services in the world market be achieved. Countries that have better human capital succeed in the world market and provide sufficient resources for its reproduction.

The most multi-layered element of human capital reproduction is education, which ensures the effective quality-volume ratio of the country's human capital. Whether the formation of a person, his further growth, developmental tendencies are manifested in the social environment, nevertheless, a person's natural abilities, mental abilities, physical and caring qualities are formed and developed in the conditions of education and upbringing. In this regard, the development and improvement of the education system, bringing it in line with modern requirements, is always a priority in the economic policy pursued by each state.

The existence of a sufficient quality teaching staff and the saturation of educational laboratories play a more important role in the organization of higher education.

Ensuring teaching quality at universities is a serious problem for many universities, especially those established in remote from the traditionally well-known centers for the training of specialists with higher education. One of the results of the growing enrollment of many universities has been the need for additional qualified teaching staff and advanced training, which has led to the need to retrain existing teachers to staff a growing number of higher education institutions (Chapman, 2014). Retention is the most important process of human resource management. If an organization fails to retain staff, efforts, and costs related to the recruitment and development of human resources will be wasted. Factors affecting faculty members' retention to be: salaries and benefits, effective development programs, promotion opportunities, academic freedom, organizational culture, work climate, flexibility, peer support, financial support for research, physical resources and equipment, geographic location, college reputation, facilities, workload, recruitment, appointment, evaluation, and promotion system. Universities should investigate why and for what reasons faculties leave the university, identify leaving factors and attempt to eliminate them by developing appropriate policies (Sadagheyani, et al., 2022).

To solve the problem of improving the quality of higher education, large universities open their branches in regions far from large centers for the training of specialists with higher education. An international affiliate campus is an organization related to a university with its main seat in one country that operates in another and offers its own degree in that country. Upon successful completion of the course program, conducted entirely in a department abroad, students are awarded a degree from a foreign educational institution. With a few exceptions, branch campuses have been established relatively recently, so limited experience makes it difficult to make a valid judgment on their effectiveness. In 2009, there were 162 branches, half of which were American universities. Are they sustainable over time, what unique services do they provide to students and the academic community, can affiliate campuses produce the same quality of professionals as their host universities? The answer is quite ambiguous. Note that there are already a number of problems in this area. The University of New South Wales closed its branch in Singapore in 2007, many US branches in the Persian Gulf are on the verge of failure. In particular, in this region it is unclear whether there are enough young people with sufficient interest in higher education. Do students on an overseas campus get the same educational experience as on their home campus? Is the quality of teaching equivalent? It is not enough to indicate the name of the university on the diploma. The actual quality and at least the visibility of the academic experience and culture on the home campus

must be ensured if the affiliate is to merit the award of a university degree. Anything less "dilutes" the brand of the main university. Affiliate status requires home campus faculty to provide actual academic experience from the sponsoring university. This does not mean that a few teachers just fly in for "intensive" weekend courses. Will affiliates be able to lure faculty for a semester or longer from home to an overseas campus? Temporary faculty based in the region, or local residents with doctoral degrees awarded by the university's main campus, will not be enough. Home campus faculty must be prepared to teach at a branch office for a year or more (Altbach, 2011).

Universities of small towns, located far from educational centers of higher education, are in a similar situation. This is especially true for technological universities, where in addition to the need for competent teaching staff, it is also necessary to have a good laboratory base. Therefore, in such conditions, it is advisable to base technological universities on two or three branded research areas that are characteristic of this region. By developing the organizational and legal structure of the university on this basis, it is possible to achieve the required quality of education.

The meaning of the concept of "quality" is the ability to measure the components of quality assessment. Thus, the quality indicators of different educational institutions can be compared (Barnet, 1992; Harvey, 1997; Sanders-Dewey and Zaleski, 2009; Reuter, 2009). This approach makes it possible for higher education institutions to use the "Entry-Exit" mechanism of analysis, where the main input indicators can be the profile of the teaching staff and the level of saturation of the laboratory-classroom fund. The relative direction underlying the analysis of the concept of "quality" presupposes the application of the principle of negation. Quality is considered assured in the absence of the constituent components that are considered negative for a given function, or in terms of comparison, its part. It is advisable to use this direction to achieve a qualitative assessment of other human resources, in particular as a final goal, to prepare market-oriented graduates. The development direction underlying the concept of "quality" is mainly used for internal quality assessment. This provides an opportunity to evaluate ways to improve educational processes. When compiling the quality assessment of the educational function, it is necessary to consider the components of the educational process, the stability of financial resources, the readiness of the applicants (if there is a high school within the university). In our opinion, it is necessary to add the component that characterizes the teaching staff. Quality is considered as meeting the goals, as satisfying the goals and desires of the beneficiary. Theoretically, the beneficiaries present their demands. In the field of education, this means the ability of the university to fulfill its mission. Learners are the "consumers" of higher education, government and society in general, however, they may have differing opinions about the purpose of the educational institutions and the quality standards of the staff trained by them. In this regard, it is necessary to set certain quality standards, and any institution that meets the established criteria will be considered qualified (Jacobsson, 1990; Khondaker et al., 2018). The universities of the countries involved in the Bologna Process have established that quality reflects the effectiveness of the education provided by universities, where the teaching component plays a crucial role. Experience has shown that it is difficult to persuade faculty at home to teach at a branch institution for an extended period of time, even if the salary and other benefits are attractive. However, even after a small group of internationally minded faculty and staff have volunteered to go to work in the province, convincing others to go is almost impossible. Scientifically active teachers, especially in the field of exact sciences, where

the branch laboratories cannot be compared with home ones, will not want to leave their laboratories (Altbach, 2011).

Therefore, the main direction of development of technological universities in small towns, located far from educational centers of higher education, should be the preparation of their own high-quality teaching staff, with the involvement of invited specialists in this process to teach at the university.

It is often difficult to convince the government that maintaining institutions in small towns that are remote from higher education centers is worth the extra work, risk, and commitment required. Without “purchasing” or training good quality teachers, it is difficult to succeed (Altbach, 2011).

Based on the above mentioned, we can conclude that the first of the main success factors in this matter is to provide motivation for teachers in order to receive a relatively sufficient salary.

In the Soviet Union and in post-Soviet Armenia, the calculation of wages in universities was carried out at a rate or by the hour. In the case of working at a rate, the same employee, teaching the same lesson, received a higher salary than in the hourly format. In recent years, a number of RA universities have successfully applied the method of calculating salaries, which is based on the principle that, regardless of the method, a teacher (professor, associate professor, assistant, etc.), depending on his category and volume of workload, receives the same salary (Jacobsson, 1990; Markosyan et al., 2013).

2. METHODOLOGY OF RESEARCH

The task is to develop a method of increasing the lecturer's salary, which will depend not only on the type of teacher, the quality of teaching, but also on the results of his research work. In the study, the approaches and principles of scientific abstraction, as well as international comparisons.

3. RESULTS

Let us present the hourly pay principle of the lecturer's salary, which is formed on the basis of the lecturer's category, their corresponding coefficients and the number of lessons per year with the following formula (Harutyunyan et al., 2018, Harutyunyan et al. 2019):

$$A = \frac{N \cdot 10}{m} K, \quad (1)$$

where A is the basic monthly salary of a full-time lecturer expressed in AMD, N is the annual workload, K is the category coefficient, and m is the number of months to be taught. In case of a lecturer's hourly tuition, the salary for the given month is calculated by the formula $A = 10 \cdot K \cdot M$, where M is the number of hours taught by the lecturer in that month. If this calculation system is used, the lecturer's teaching time, regardless of his / her working conditions (on a part-time or hourly basis) is remunerated in the same amount, but the following approaches can also be applied when calculating a lecturer's salary.

One of the important components of the evaluation of modern education is the real involvement of the lecturer in the scientific activity, therefore, a new methodology for calculating the lecturer's salary is proposed, which takes into account his / her scientific activity (Altbach, 2011).

In order to encourage the lecturer's scientific activity, an indicator of the effectiveness of the lecturer's scientific activity is introduced, the amount of which is the works published

by the lecturer's authority (co-authorship) during the previous five (or other number) years. It is recommended to use coefficients based on high-ranking scientific journals and publications (Institute for Scientific Information (ISI JCR), Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI), Emerging Sources Citation Index (ESCI), Arts & Humanities Citation Index (AHCI), (Book Citation Index), Scimago Journal & Country Ranking (SJR), Web of Science, etc.). Based on the level of the university, the grades obtained from the combinations of ratings of the publications of the lecturer's recent articles published in the reporting years receive values in the form of coefficients. In particular, at Shushi Technological University, the coefficients are differentiated: 1.05, 1.1, 1.25, 1.30 and 1.35, which form the additional percentages of the lecturer's salary - 5, 10, 25, 30 and 35%, respectively. These values can be varied and can change in the range of coefficients above 1.0.

For example, the lecturer's salary was calculated with a coefficient of K and in the M month of the academic year, the lecturer provided one of the indicators of the effectiveness of the scientific activities listed above. By that time, he had been teaching B lessons from N Classes of his annual workload. If before that the monthly salary of a full-time lecturer was A , then started from that month for the remaining $N-B$ classes for 10 months the lecturer will receive $\frac{B \cdot 10}{10-m} \cdot \frac{K \cdot P}{100}$ surcharge, that is his salary instead of being calculated by formula (1) will be calculated by the following formula:

$$A' = A + \frac{B \cdot 10}{10-m} \cdot \frac{K \cdot P}{100}, \quad (2)$$

where P is the additional percentage formed from the above-mentioned coefficients, whereby the coefficient 1.05 corresponds to 5%, to 1.1 - 10%, etc.

It is obvious that the salary of a lecturer working on an hourly basis in the following months will be calculated by the following formula:

$$A = M \left(\frac{100+P}{100} \right) 10K, \quad (3)$$

where, M is the number of lessons taught in the current month.

4. DISCUSSION

The efficiency index of scientific activity is used from the moment of submitting an application by the lecturer with appropriate justification.

The compliance of the parameters of Equation (2) with reality is checked at the end of each year; changes are possible that can lead to both an increase and a decrease in wages.

Let's consider the following example. For example, at the end of December the lecturer received a bonus according to the coefficient $k = 1.25$ and from January 1 it passes to the bonus calculated at the coefficient $k = 1.1$, in this case the new salary of the lecturer will be calculated by the following formula:

$$A' = A - \frac{B \cdot 10}{10-m} \cdot \frac{K \cdot (P_1 - P_2)}{100}, \quad (4)$$

where A' is the new salary, starting from January 1, A is the salary until January, B is the number of hours left from January 1 until the end of the year P_1 until January 25% of the surcharge according to the coefficient $k = 1.25$, P_2 is the expected percentage of the surcharge corresponding to the coefficient $k = 1.1$ from January, K is the coefficient of its category.

Thus, formulas (2), (3) and (4) can be replaced by general formula:

$$A' = A + \frac{B \cdot 10}{10 - m} \cdot \frac{K \cdot (P_2 - P_1)}{100}, \quad (5)$$

Accordingly, the salary of a lecturer working on an hourly basis in this case will be calculated instead of (3) by the following formula:

$$A = M \left(\frac{100 + P_2 - P_1}{100} \right) 10K. \quad (6)$$

The lack of motivation to create and introduce new inventions and ideas is one of the primary causes of the undercommercialization of scientific findings in nations with transition economies. The primary importance of valuing and sustaining human value as capital forms the basis of the suggested solutions. In general, a university lecturer/researcher makes a poor manager. A university (research organization) - manager - producer chain with clearly defined roles and duties for each link should be established in order to ensure the process of investing academic research effort into the economy. In the process of training scientific personnel, it is necessary to include the invention in the list of scientific periodicals acceptable by the Higher Qualification Commission. In the Republic of Armenia, such a scientific and scientific- educational system has been formed, which has many issues and potential for growth. Although the state system's attitude toward scientific and scientific-technical activities has changed dramatically and the state budget's allocations for these activities have expanded greatly, yet the sector's management system now faces issues that must be resolved and does not offer a way to guarantee considerable advancement in the creation of critical scientific directions and efficient commercialization of scientific findings. (Tokmajyan et al., 2022, Markosyan et al. 2023). The use of the mechanism proposed in this work will speed up the solution to this problem.

5. CONCLUSION

For the technological universities the issues of staffing and generational change are of great importance. Setting a high salary for a lecturer is still not enough to make working at a university attractive. It is necessary to create conditions to ensure the permanent continuity of individual development. The dependence of the lecturer's salary increase on the quality of teaching, the results of scientific research, according to the above methodology, will be an effective incentive to solve this problem, to fill the university with young, literate staff.

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