

Faculty Member Performance Evaluation And Salary Pricing Modeling For Lebanese Private Universities

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Abstract

The purpose of this paper is to present an objective evaluation model that can be applied on private Lebanese universities. A set of interrelated equations is established in order to reflect objectively the results of the faculty member's performance evaluation. A simulation application is presented to illustrate the particularities of this model and its impact on the salary "pricing".

1.0 Introduction

While performance evaluation is not simple, faculty members' evaluation is an opportunity to motivate effective job performance. It is a tool that can enhance the management of a University, and it is also a process that allows faculty members to be recognized for good performance and provided with recommendations for improvement. Since performance evaluation is communication between faculty member and University supervisors, it is an extremely important supervisory responsibility with far-reaching consequences for both the University eminence and the faculty member career. Thus, faculty member evaluation should lead to a certain form of promotion to be translated into a salary adjustment.

However, Lebanese private universities suffer from a serious lack of objectivity in evaluating their faculty members' performance or deciding about their salary increases. Hence, they require a consistent evaluation model far from subjectivity and prejudice.

The purpose of this paper is to propose an objective and flexible performance evaluation model that can be tailored with respect to the budget constraints of each university and to its own evaluation criteria and norms. Consequently, the determination of the final salary will be automatically set and justified without biased individual interventions.

2.0 The Model

2.1. Purpose Of The Model

The purpose of this model is first to provide private Lebanese universities with an evaluation system that can be easily adapted and modified according to their evaluation standards and principles and secondly to assist the decision maker in adjusting and tweaking faculty members' salaries.

2.2. Structure Of The Model

Since the final endeavor of the model is to reorganize the salary in order to reflect objectively the results of any performance evaluation, we have built the final salary from four components/variables as follows:

1. Basic Salary
2. Transport expenses
3. Personal points
4. Seniority

2.3. Definition Of Variables

2.3.1 Basic Salary, “Base”

In order to determine the amount of Base, the model suggests the structure of a function represented by 5 different factors. Factors can be considered as constant amounts or they can be allocated a certain weight to be considered with respect to the details and facts of each factor.

The following table depicts the particularities of these factors:

Structure of the Base	#(2)	W(3)	Amount in \$(4)
1. Basis for starting salary BSS (1)			Constant K (1)
2. Number of years of full-time teaching at the University level (TE)	x	y	=x*y*(1)
3. Practical experience (PE),	x	y	=x*y*(1)
4. Experience in Administrative Assignment (AA)	x	y	=x*y*(1)
5. Research and Publications (RP)			=Sum(a:f)
<i>a. Reprint of Refereed Research Paper (RRR)</i>	x	y	=x*y*(1)
<i>b. Refereeing of Research Papers (RRP)</i>	x	y	=x*y*(1)
<i>c. Supervision of MS/MA thesis or Ph.D. dissertations (SD)</i>	x	y	=x*y*(1)
<i>d. Textbook or Book Publications (TP)</i>	x	y	=x*y*(1)
<i>e. Research activities (RA) such as conferences, seminars, exhibitions, publications of non-refereed papers and the like</i>	x	y	=x*y*(1)
<i>f. Miscellaneous (M), professional recognition, Merit, awards, professional listings and the like</i>	x	y	=x*y*(1)
Total Base			Sum(1:5)

- (1) BSS can be determined according to the country economic conditions regarding basic salaries, and to the university standards. The model proposes at the outset a clear definition of this factor, i.e., a starting amount should be set. This constant amount will serve as a starting point for the computation of the value of the four other variables.
- (2) # means number of years or number of research and publications.
- (3) W means the weight (in %) to be allocated for each variable. This weight is set according to the University’s strategy. The higher the weight, the higher the amount to be paid for the faculty member. With respect to the budget constraints of the university, the highest weight can be allocated for the most challenging variable, and the university can objectively, in this case, manipulate the ceiling and the floor of the Base.
- (4) The last column starting point 2 (i.e. TE) represents the result of the weighted number of years or publications times the constant amount already defined in (1).

Consequently, the corresponding function can be written as follow¹:

$$\text{Base} = K + f(\text{TE}, \text{PE}, \text{AA}, \text{RP}) \tag{1}$$

Where:

$$\text{TE} = \#_{\text{TE}} * W_{\text{TE}} * K \tag{2}$$

$$\text{PE} = \#_{\text{PE}} * W_{\text{PE}} * K \tag{3}$$

$$\text{AA} = \#_{\text{AA}} * W_{\text{AA}} * K \tag{4}$$

$$\text{RP} = \#_{\text{RP}} * W_{\text{RP}} * K = \#_{\text{RRR}} * W_{\text{RRR}} * K + \#_{\text{RRP}} * W_{\text{RRP}} * K + \#_{\text{SD}} * W_{\text{SD}} * K + \#_{\text{TP}} * W_{\text{TP}} * K + \#_{\text{RA}} * W_{\text{RA}} * K + \#_{\text{M}} * W_{\text{M}} * K \tag{4}$$

¹ For more details please refer to Excel sheet “Salary Simulation”.

The Base should be directly indexed to the CPI², that is, at the end of the year, the cumulated average percentages of the CPI will be applied and added to the Base³.

2.3.2. Transport expenses

At the end of 2002, a Lebanese National convention has set a daily transport expenses at US\$ 4.6 or LBP 7000. This sum should be an independent item from the other components.

2.3.3. Personal points, “PP”

Personal points constitute the core of the faculty member performance evaluation. According to our performance evaluation model, PP are divided into (1) points number and (2) points value in USD.

(1) Points number are a linear function of a set of variables to be defined by each university, such as:

1. Competence: c,
2. Skills: s,
3. Experience: e,
4. Publications: p,
5. Academic activities: aa,
6. Social achievements: sa,
7. Integrity: i,
8. Others (such as political sympathies, communal belongings, etc)

It is worth mentioning that those variables are considered and counted one year after the faculty member has joined the private university. Therefore, there is no correlation between this function and function (1) defined above.

$$\text{Points Number} = \Phi (c, s, e, p, aa, sa, i). \tag{5}$$

Where,

$$\text{Points Number} = m_1c + m_2s + m_3e + m_4p + m_5aa + m_6sa + m_7i \tag{6}$$

and m_1, m_2, \dots, m_7 represent the corresponding elasticity to each variable.

The weight of m_1, m_2, \dots, m_7 can be determined by each university. However, and based on our survey covering a small sample chosen from the top 5 universities⁴ located in Lebanon, we propose the following weights.

	m₁	m₂	m₃	m₄	m₅	m₆	m₇	m₈⁵
Observation⁶	0.125	0.01	0.2	0.4	0.1	0	0.01	0.15
Weight Proposition	0.17	0.13	0.14	0.22	0.14	0.1	0.1	0

² Consumer Price Index. The selected CPI will be an average between the Lebanese Central Bank figures and the ones of the Administration Centrale de la Statistique.

³ Inflation rates cannot be applied on the whole salary, it should only concern the first basic part since Base helps to cover basic needs (food, clothing, accommodation etc.)

⁴ American University of Beirut (3 full-time faculty members), Université Saint Joseph (2 full-time faculty members), Notre Dame University (1 full-time faculty member), Lebanese American University (1 full-time faculty member), and Balamand University (1 full-time faculty member).

⁵ m8 does not correspond to any variable defined in this study. It is considered as miscellaneous variable (such as special connections in the right places, political affairs, etc.)

⁶ According to interviews done with full-time faculty members belonging to the above mentioned universities.

Values of m_1 to m_8 corresponding to our survey (observation line) are computed on the basis of a weighted average values. Our model weight proposition follows a normal and objective distribution taking into consideration the sociological and economic constraints of Lebanon as well as the academic quality equilibrium allocation.

Each point number, i.e., c, s, e, p, aa, sa, and i will be by itself a function of a set of conditions, once realized, the full-time faculty member will be automatically credited with the corresponding points number. However, a ceiling of points should be set for each variable and this ceiling should be the same for all of them. In our model we propose a ceiling of 300⁷ points. This ceiling can be modified with respect to the internal strategy of the university.

Variables	Conditions ⁸	Points number	Weight Proposition	Maximum Weighted Points to be credited ⁹
c		300	0.17	51
s		300	0.13	39
e		300	0.14	42
p		300	0.22	66
aa		300	0.14	42
sa		300	0.1	30
i		300	0.1	30

The total weighted points to be credited is 300. This number is considered to be the maximum number that can be reached by any faculty member, with respect to the budget constraint of the concerned university. This budget constraint is based on the maximum additional sum of money that can be attained. Assuming a value of USD 20 per point, the maximum additional amount cannot exceed in this case USD 6000¹⁰.

Accordingly,

$$PP = \sum (m_1c + m_2s + m_3e + m_4p + m_5aa + m_6sa + m_7i) * \text{Point Value} \tag{7}$$

The advantage of this model resides in the fact that performance evaluation can be measured personally by the faculty member and reflected objectively into his salary without ambiguity or individual favoritism. Therefore, any salary increase will depend on the achievement and effort deployed by the faculty member for the benefit of his or her university academic progress. Unfortunately, such an objective evaluation system is completely absent from the Lebanese universities programs.

2.3.4 Link Between Points Number And Rank¹¹

The model has set a perfect positive correlation between the accumulated number of points and the promotion or the rank of the faculty member. The common factor between accumulated points and the rank is the 300 number. This common point preserves the coherence and the consistency of this evaluation model.

The greater the number of points accumulated by the faculty member during his/her career, the faster the promotion from a rank to another will be granted to him/her. The corresponding accumulated points number to each rank are proposed in the table below:

⁷ The selection of the number “300” has been set for an average and fair private university.

⁸ The university can set the appropriate conditions to be fulfilled by the faculty member.

⁹ The weight of each variable corresponds to the above values of the 7 parameters ($m_1, m_2, m_3, \dots, m_7$), i.e, $51 = 300 * 0.17$

¹⁰ This ceiling does not take into consideration other administrative responsibilities assumed by the faculty member such as the responsibility of being Dean, chairperson, etc.

¹¹ Rank is defined as the promotion from Instructor to Lecturer, Senior Lecturer, Assistant Professor, Associate Professor and to Professor.

Rank	Corresponding weighted points	Accumulated weighted Points
Instructor	25	25
Lecturer	50	75
Senior Lecturer	50	125
Assistant Professor	50	175
Associate Professor	50	225
Professor	75	300
Total	300	

The determination of these points is subject to the university discretion. However, the total number should always be in conformity with the above defined point number.

2.3.5 Seniority, S

The model suggests a certain compensation for seniority. This compensation should be independent from the promotion of the faculty member and at the same time directly correlated to the accumulated number of points calculated according to equation (6). In other terms, if the faculty member is still serving the university year after year but without any academic improvement, he will not be promoted but he will be compensated for his/her seniority with respect to his/her last accumulated points number. Consequently, this seniority is reflected in his/her salary via this equation:

$$S = \bar{Y}(PN, Y) \tag{8}$$

Where

$$PN = m_1c + m_2s + m_3e + m_4p + m_5aa + m_6sa + m_7i$$

And

Y = number of years*Value¹² of each year expressed in USD

3.0 Simulation (Please Refer To Excel Sheets)

3.1 Hypothesis:

1- Case of Dr. Happy

Dr Happy is a full time faculty member since January 1999. He is very competent and devoted. He has published 3 articles in a refereed journal. He has 7 years of experience in Financial Institutions. He is very active and has contributed to the organization of 4 conferences within the University and he got an award in recognition of excellence in research.

2- Case of Dr. Satisfied

Dr. Satisfied is a full time faculty member since January 1999. He is a good teacher. He was not able to publish. His professional experience is limited. He is not very active.

Question:

With respect to the above faculty member evaluation modeling, what will be the annual salary of Mr. Happy and Mr. Satisfied at the end of 2002? (Make sure to present the salary structure according to its 4 components).

¹² Each university can attribute the corresponding value that can fit its budget constraint.

Assume an inflation rate of 5%, value per point = \$10, value of a one-year seniority = 1 USD.

3.2 Simulation results:

Salary Distribution of Dr Happy (per month in USD)	2002
Basic Salary	1,575.00
Inflation amount	75.60
Transport expenses	121.33
Personal points	1,771.00
Seniority	531.30
Total Salary	4,074.23

Dr. Happy's PN

Points Number ($m_1c + m_2s + m_3e + m_4p + m_5aa + m_6sa + m_7i$)

	m_1	m_2	m_3	m_4	m_5	m_6	m_7
Proposition	0.17	0.13	0.14	0.22	0.14	0.1	0.1

c	s	e	p	aa	sa	i
51	39	42	66	42	30	30

<i>Ceiling points number</i>	300.00	300.00	300.00	300.00	300.00	300.00	300.00
<u>to be filled</u>	200	150	200	180	150	150	200
<i>Weighted personal points</i>	34	19.5	28	39.6	21	15	20
<u>Total personal points</u>	177.1						

Salary Distribution of Dr Satisfied (per month in USD)	2002
Basic Salary	1,150.00
Inflation amount	55.20
Transport expenses	121.33
Personal points	1,257.00
Seniority	377.10
Total Salary	2,960.63

Dr Satisfied’s PN

$$\text{Points Number} = (m_1c + m_2s + m_3e + m_4p + m_5aa + m_6sa + m_7i)$$

	m ₁	m ₂	m ₃	m ₄	m ₅	m ₆	m ₇
Proposition	0.17	0.13	0.14	0.22	0.14	0.1	0.1

c	s	e	p	aa	sa	i
51	39	42	66	42	30	30

<i>Ceiling points number</i>	300.00	300.00	300.00	300.00	300.00	300.00	300.00
to be filled	200	150	100	100	80	50	200
<i>Weighted personal points</i>	34	19.5	14	22	11.2	5	20
Total personal points	125.7						

3.3 Simulation Summary

With respect to the above simulation results, Dr. Happy should be promoted to the rank of Associate Professor while Dr. Satisfied should be demoted.

4.0 Conclusion

The purpose of this paper was to present an objective evaluation model that can be applied on private Lebanese universities. This model has established a set of equations interrelated where the dependant variables were divided into four categories constituting the structure of the final salary and the independent variables were properly customized in way to fit each private university with respect to its endogenous and exogenous constraints. The particularity of this model resides in its flexibility in terms of “pricing” and in its objectivity in terms of performance evaluation (promotion, salary adjustment, etc). The main benefit of this model is that it avoids individual interventions during the evaluation process and reduces subjectivity to the bare minimum in a country where the promotion and the determination of salaries become subject to personal contacts and unprofessional assessment.

5.0 References

1. Aleamoni, L.M. (1987). Student rating myths versus research facts. *Journal of Personnel Evaluation in Education, 1*, 111-119.
2. Amatora, M. (1954). Teacher rating by younger pupils. *Journal of Teacher Education, 5* (2), 149-152.
3. American Educational Research Association (1953). Second Report of the Committee on the Criteria of Teacher Effectiveness. *Journal of Educational Research, 46*, 641-658.
4. American Federation of Teachers (1996). *Making standards work*. Washington, D.C.: author.
5. Bergman, J. (1980). Peer evaluation of university faculty. *College Student Journal, 14* (3), Part 2, 1-21.
6. Berman, P. & McLaughlin, M.W. (1978). *Federal programs supporting educational change, vol. viii: Implementing and sustaining innovations* (R-1589/8-HEW). Santa Monica, CA: Rand Corporation.
7. Blackburn, R. & Clark, M. (1975). An assessment of faculty performance: Some correlates between administrators, colleagues, students and self ratings. *Sociology of Education, 48*, 242-256.
8. Carroll, J. (1981). Faculty self evaluation. In J. Millman (Ed.), *Handbook of teacher evaluation* (pp. 180-200). Beverly Hills, CA: Sage.
9. Cederblom, D. & Lounsbury, J. (1980). An investigation of user-acceptance of peer evaluations. *Personnel Psychology, 33*, 567.
10. Elbow, P. (1986). *Embracing contraries: Explorations in learning and teaching*. New York: Oxford University Press.
11. Haertel, E.H. (1987). Toward a national board of teaching standards: The Stanford Teacher Assessment Project. *Educational Measurement: Issues and Practices, 6* (1), 23-24.
12. Medley, D.M. & Coker, H. (1987). The accuracy of principals' judgments of teacher performance. *Journal of Educational Research, 80*, 242-247.
13. Medley, D.M., Coker, H. & Soar, R.S. (1984). *Measurement-based evaluation of teacher performance: An empirical approach*. New York: Longman.
14. Murphy, J. (1987). Teacher evaluation: A comprehensive framework for supervisors. *Journal of Personnel Evaluation in Education, 1*, 157-180.
15. Nisbett, R.E. & Ross, L. (1980). *Human inference: Strategies and shortcomings of social judgment*. Englewood Cliffs, NJ: Prentice-Hall.
16. Perry, R., Abrami, P. & Leventhal, L. (1979). Educational seduction: The effect of instructor expressiveness and lecture content on student ratings and achievement. *Journal of Educational Psychology, 71*, 107-116.
17. Peterson, K.D. (1989c). Costs of school teacher evaluation in a career ladder system. *Journal of Research and Development in Education, 22* (2), 30-36.