Identifying the Evaluation Model of the Performance of Accounting Instructors
Case study: In Technical High Schools of Tehran City

Seyfollah Ghaderi Rahaghi[1]*,
Zahra Seyed-al-Hosseini Rahaghi[2,] Majid Ghaderi Rahaghi[3]
seyfollahghaderi@yahoo.com, rahaghi.1385@gmail.com,
rahagh.1385@gmail.com
Paper Reference Number: 0109-433
Name of the Presenter: Seyfollah Ghaderi Rahaghi

Abstract

The performance evaluation process provides an organization with a mechanism by which the effectiveness of people's jobs can be determined. This is merely possible when the performance evaluation is done accurately. This study has mainly focused on evaluating appropriate methodologies of modeling performance calculation and ranking the accounting instructors.

Having carefully studied the theoretical aspects of the issue and its previous literature a model was offered in which and by the aid of 360 degree model, the performance of the accounting instructors could be calculated. Afterwards, based on the Multiple Attributes Decision Making model (MADM), the instructors could be evaluate and ranked.

In order to use the above-mentioned model, some quantitative index and indexes were needed and those which were evaluative had to be quantified. In this study, the effective indexs for evaluation and ranking instructors include four general orientations: 1.Individual 2.Behavioral 3.Development 4.Result-Oriented. These and their sub indexes were described.

After confirmation of the study's hypothesis by means of descriptive statistical analysis, it became apparent that both quantitative and qualitative indexes and sub-indexes that were proposed by accounting instructors are suitable. The relative importance of the indexes which had been defined by the accounting schools' instructors through a survey were also determined to be used in the model. The model was subsequently tested in a small sample and a number of accounting instructors were evaluated and ranked based on Technique for Order Preferences by Similarity to Ideal Solution (TOPSIS) method which is classified as one of MADM's methods.

Key words: Evaluation, Ranking, Accounting Instructor, MADM, TOPSIS

---

[1] M.A. in Industrial Management, Accounting Teacher in Shahid Shamsi pour Collage, Tehran, Iran
[2] M.A. in Information Technology Engineering, Tarbiat Modares University, Tehran, Iran
[3] M.A. in Administrative Management, Accounting Teacher in Shahid Shamsi pour Collage, Tehran, Iran

2

5thSASTech 2011, Khavaran Higher-education Institute, Mashhad, Iran. May 12-14.

1. Introduction

Performance evaluation is executing with purpose of identifying awareness, knowledge, effort, modify, improvement and growth in human force which it causes improvement in individual and organizational performance. Of course, most important object in performance evaluation is determination of suitable and standard indexes and after that using these indexes in a model that it can present best method for evaluation and ranking.

In recently years, increasing evolution in collection of knowledge, theories and changes in information process method and even information achievement methods are most important elements that they have affected in decision making process in management.

From many of knowledge and methods, Multi-Attribute Decision Making (MADM) method is used for a few years. Since, algorithm of this method has based on mathematic logic and it has much adaption with thinking way and human psychic processes, it has high efficiency, use of it can solve lots of problems in decision making.

2. Theorem expression

Performance evaluation process provides a mechanism for organization which through it the organization can define balance of job duties efficiency and this is possible if performance evaluation process has been done correctly and carefully. It means that effective indexes and factors should be select carefully in order to enable people to measure it.

Nowadays, performance evaluation which has been done from instructors has lots of incompetence and decrements:

a) Most important indexes have equal scale.
b) We can't use quantitative and qualitative indexes simultaneously.
c) It's impossible to use indexes with different measurement units.
d) Judicative faults such as Hallo Effect have effect on evaluation.
e) Opinions of instructor which is important factor didn't have considered.

At the end, we can deduction these annual evaluation don't measure carefully and they aren't correct base for organizational decisions such as amount of salary and wage, advances, encouragement, punishment and etc.

3. Research purpose

A) Presentation an improved model for performance evaluation of accounting instructors
B) Determination effective indexes and factors and after that ranking them.

3.1. Main questions

1) What are suitable quantitative and qualitative indexes on performance evaluation of accounting instructors?
2) Can we rank accounting instructor's performance through use of these indexes and MADM method?

3.2. Subsidiary Questions

1) Is there any satisfaction about current evaluation system between accounting instructors?
2) Is there any meaningful relationship between Individual index and increasing accounting instructors?

3) Is there any meaningful relationship between Behavioral index and increasing accounting instructors?
4) Is there any meaningful relationship between Development index and increasing accounting instructors?
5) Is there any meaningful relationship between Result-Oriented index and increasing accounting instructors?

4. Definition of evaluation

Personnel performance evaluation is systematic and regular assessment of people work about doing their duty method in their job and determination of existing potential in them toward growth and improvement. (Mir Sepasi, 1379)

5. Performance evaluation process

Evaluation process is begun with performance standard creation which is according with organizational strategic purposes. Performance standards have been adopted through organization strategic purposes, organization features, analyzing and jobs explanation. Sextet levels of performance evaluation process are as follows: (Ghorbani, 1381)

1- Determination of performance standards for personnel. It's necessary to discuss about expectation and standards with personnel.
2- Determination of evaluable and mutual purposes. These purposes are determined through relationship between boss and personnel. In fact, in this level mere transmission of information is accomplished from boss to personnel about expectations which the personnel don't know about them.
3- Real performance evaluation which is needed to achieve necessary information.
4- Comparison between real performance and standards. There is a point on this level that is diversion between standard and real performance.
5- Interview for personnel evaluation. In this level, we enclose with personnel the results from comparison between last level and probable diversion and after that we can get suitable decisions.
6- Final level of evaluation is identity, recognition and beginning of modifying activity. This is too much necessary.

5.1. Evaluation indexes

Jobs are very different and every one of them has some special features. Hence, we can't determine a group of special indexes that they have been common and it can't be use for personnel performance evaluation in every job. But, in general the indexes which are applied for performance evaluation should have features that using of them increase certitude, correctness and efficiency. These features is as follows: (Saadat, 1380)

- It can to trust it. It means we can get similar results with measuring indexes in different times. Also, the indexes should be in such kind that doesn't have any effect on results if we measure them with different people.
- It can identify difference between personnel with a view to performance and it can individualize them from each other.
- Job officer has to affect on it. However, we want to evaluate people efficiency with measuring special indexes. Therefore, naturally we should select a index that is in control.

4

5thSASTech 2011, Khavaran Higher-education Institute, Mashhad, Iran. May 12-14.

- For those people that they are evaluated with these indexes, it is very important that the personnel have been believed their performance are evaluated with fairly and correct indexes.
- When performance evaluation system can be effective that it use from real indexes which have straight relationship with job.

Researcher for selection correct indexes has studied some last studies about performance evaluation in different countries that it has been showed in following table.

	Author	Year	Country
1	Chad D. Ellett	2003	America
2	Charles Teddlie	2003	Cyprus, China, England
3	Kenneth D. Peterson	2003	--
4	Nattavud Pimpa	2005	Thailand
5	John Simmons	2002	--
6	Odhiambo O.	2005	Kenya
7	Education Ministry	2009	Iran

Table 1- Previous performance evaluation studies

After quantitative and qualitative indexes selection, some quantitative index and indexes were needed and those which were evaluative had to be quantified. In this study, the effective index for evaluation and ranking instructors include four general orientations: 1.Individual 2.Behavioral 3.Development 4.Result-Oriented. These and their sub indexes will describe.

In addition, for gathering data used questionnaire that its validity approved by professors and experts with Delphi method and its reliability proofed with Alpha Coefficient (0/895) and for data analysis we used descriptive and deductive methods and also we used SPSS for surveying indexes.

5.2.Selected indexes
1. Individual: evaluation is based on individual features and in order to evaluate, personal features are used. These features emphasize on person and its character.
2. Behavioral: this case attends to instructor behavior in class. Using these indexes for showing feed back to people which are evaluated is very useful, because these indexes determine what an instructor should do in class with different methods.
3. Development: these indexes attend to research performance instructors toward increasing their knowledge and cause of it, their efficiency will be increased.
4. Result-Oriented: these indexes show work behavior of an instructor which lead to get result in that lesson.

In consideration the above indexes, researcher suggest a improved model for evaluation accounting instructors that you can see in the below:
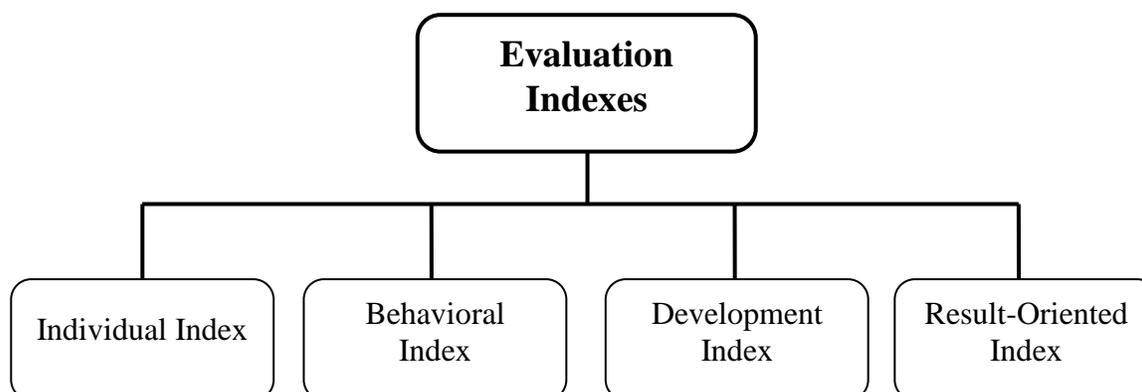
Figure No.1- Suggested Model

5.3.Evaluation methods

Multi-Attribute Decision Making problems are not easy to evaluate especially, when we face to big and complicated problems. Because in decision making space indexes often have contradict with each other in a way that full satisfaction of one lead to dissatisfaction of another, decision maker tend to satisfy all of indexes yet.

In general, Multi-Attribute Decision Making models can be divided in two parts:

1- Reparative models: they include some models that accomplish indexes exchange between them. It means change in one index is compensated with opposite change in another index or indexes. These models divide to three parts such as Coordinated, Manipulator, Scoring which every one of them have some methods. Most important methods are TOPSIS, SAW, MRS, LINMAP, MDS, ELECTRE. (Adel Azar, 1381)

2- Non reparative models: they include some models that don't accomplish indexes exchange between them. It means weakness in one index doesn't compensate by strength in another index and every index separate from another index for decision making. Advantage of these models is their simplicity which is accordance with decision maker behavior and limitation in information.

Researcher is going to use TOPSIS method for ranking accountant instructors.

6. Research Methodology

In this survey, research method is descriptive in a way that in theoretical part with referring to literature and last research about performance evaluation, different performance dimension and standards and indexes was studied and at last conceptual model for performance evaluation was represented. In order to gathering information about indexes and different dimension of model, studies are done in theoretical and tracking.

Researcher is going to:

1- Design questionnaire in order to survey current evaluation system
2- Survey effectiveness of quantitative and qualitative indexes in evaluation system
3- Analysis findings through SPSS and TOPSIS method.

6.1.Statistical society and statistical sample

In this research, accounting instructors in Tehran which they are working in technical schools were considered as statistical society and based on limited society formula, statistical samples were considered 100. Questions are designed based on Lickert spectrum.

6.2.Data Gathering

Researcher distributed 100 questionnaires between accounting instructors in Tehran city and after mustering them, 11 questionnaires are missed. After analysis them with SPSS software, the following results achieved.

7. Analysis data and present results
7.1.Analysis data to answer first research question

6

5thSASTech 2011, Khavaran Higher-education Institute, Mashhad, Iran. May 12-14.

About analysis current Evaluation system for accounting instructors, results are brought in follow table:

Scales	Very little	Little	Middle	Much	Very Much
Abundance	36	36	15	2	--
Abundance Percent	40/45	40/45	16/85	2/25	--

Table 2- analysis of current evaluation system for accounting instructors

Indexes	Grouping	Ratio	Meaningful Number	Result
Individual	Minor or equal medium	0/25	0/000	Effective
	Upper than medium	0/75		
Behavioral	Minor or equal medium	0/25	0/000	Effective
	Upper than medium	0/75		
Development	Minor or equal medium	0/33	0/000	Effective
	Upper than medium	0/67		
Result-Oriented	Minor or equal medium	0/34	0/000	Effective
	Upper than medium	0/66		

Table 3- Results of Binomial Test about indexes

Indexes	Meaningful Number	Correlation Ratio	Relationship Result
Individual	0/000	0/593	Straight and Meaningful
Behavioral	0/000	0/581	Straight and Meaningful
Development	0/000	0/475	Straight and Meaningful
Result-Oriented	0/000	0/469	Straight and Meaningful

Table 4- Results of Pearson Correlation Test

Main Question	Meaningful Number	Correlation Ratio	Result about Relationship
Indexes and evaluation system	0/000	0/725	Straight and Meaningful

Table 5- Results of Pearson Correlation Test

7.2.Analysis data to answer second research question

In order to answer second research question, researcher used TOPSIS method which is one of the MADM methods. Therefore, first it is necessary to weight indexes that this was done by SPSS. Results of them are brought in table No.6.

8. Conclusions

In Consideration achieved results in above tables, for answering to main research questions which had been asked at the beginning of article, we can say:

8.1.Answering to First main question

Question 1: the table showed accounting instructors don't satisfy from current performance evaluation system.

7

5thSASTech 2011, Khavaran Higher-education Institute, Mashhad, Iran. May 12-14.

Question 2: the accounting instructors have identified that Individual Index is effective on increasing their efficiency.

Question 3: the accounting instructors have identified that Behavioral Index is effective on increasing their efficiency.

Question 4: the accounting instructors have identified that Development Index is effective on increasing their efficiency.

Index	Questions	Average	Weight	Index ranking
Individual	Doing Moral principles and loyalty to regional values	8/48	0/0334	14
	Suitable appearance and dressing in work	8/61	0/0340	13
	Neat and regular presence in class	9/42	0/0359	3
	Participate with school team toward their purpose	8/78	0/0347	11
	Responsibility for doing duties	8/82	0/0348	8
	Suitable manner with personnel	8/79	0/0346	9
Behavioral	Attention to student presence or absence	8/44	0/0333	16
	Regular and Careful scrutiny in student's activity	9/01	0/0355	5
	Full dominance on lessons and transmission them	9/54	0/0376	2
	Attention to avoiding body punishment	9/12	0/0360	4
	Use of help training tools	8/45	0/0334	15
	Ability to handle class and setting order in class	9/79	0/0387	1
	Effective relationship with parents	7/98	0/0314	18
	Encouragement and persuade students	8/93	0/0352	6
	Quantity and Quality of continuum evaluation	8/73	0/0344	12
	Being sample for students	8/79	0/0347	10
Development	Progress in education degree	7/28	0/0287	24
	Kind of degree related to accounting field	8/88	0/0350	7
	Getting working course certificate along year	6/10	0/0241	29
	Attending to scientific and applicable conferences	6/31	0/0249	27
	Presenting scientific articles related to accounting field	6/57	0/0259	25
	Writing or translating books related to accounting field	5/93	0/0234	31
	Teaching in training schools	6/44	0/0254	26
	Achieving degree in conferences	5/87	0/0231	32
	Ability to use computer and getting certificated in it	7/33	0/0289	23
	Ability to use English language	6/08	0/0240	30
	Amount of suggestions to school master for improvement	6/17	0/0244	28
Result-Oriented	Acceptance percent in final exam in Accounting Principles lesson	8/14	0/0321	17
	Acceptance percent in final exam in Industrial Accounting lesson	7/58	0/0299	21
	Acceptance percent in final exam in Companies Accounting lesson	7/86	0/0310	20
	Acceptance percent in final exam in Statistic lesson	7/87	0/0310	19
	Acceptance percent in final exam between all schools at the end of year	7/41	0/0292	22

Table 6- Weighting and ranking Indexes

Question 5: the accounting instructors have identified that Result-Oriented Index is effective on increasing their efficiency.

In addition, according with table No.5 it is identified that quantitative and qualitative indexes are suitable for accounting instructors evaluation systems.

8.2.Answering to second main question

With apply TOPSIS method in a technical school, we achieved this results that you can see in the below:
- Designed model with attention to amount of indexes is a MADM model.
- Every index like MADM indexes has weight and importance.
- It is possible to determine weight of every index with scientific method like MADM method.
- Like MADM method this model has additive and ablative index.
- In Reparative models in MADM there is exchange between indexes. So, with using this feature in designed model, instructor ranking will be better than before.

Therefore, with using quantitative and qualitative indexes and suggested model, it can be evaluate and rank accounting instructors.

In consideration the above, suggested model for evaluation accounting instructor has approved and can be used in another fields.
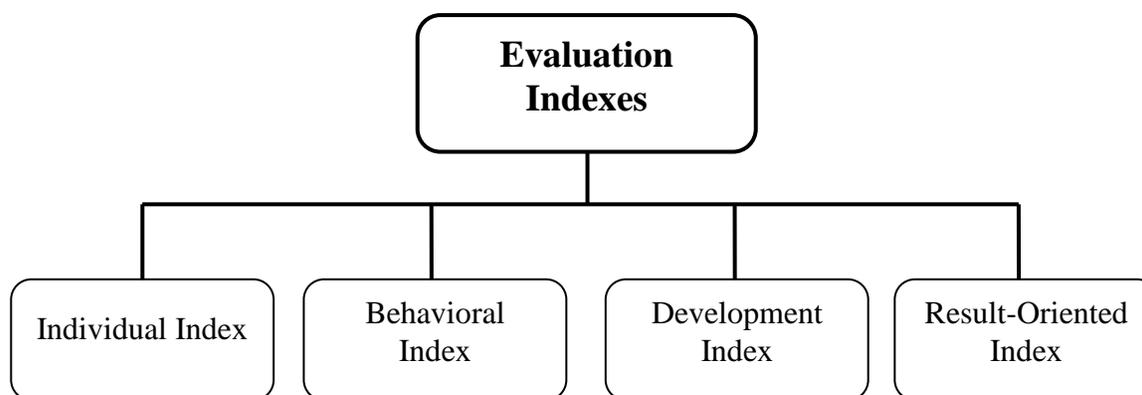

Figure No.2- Approved Model for research

9. References
1- Adelazar, (2006), "evaluation of state commercial organization with MADM method", article, research business magazine, no.39.
2- Adelazar, Rajabzadeh, A., (2002), "Applicable decision making (MADM method)" Negah danesh Publishment, first edition.
3- Chad D.E., Charles T., (2003), "Teacher Evaluation, Teacher Effectiveness and School Effectiveness: Perspectives from the USA", Journal of personnel evaluation in education.
4- Charles T., Stringfield, S., (2003), "International Comparisons of the Relationship among Educational Effectiveness, Evaluation and Improvement Variables", Journal of Evaluation in Education.
5- Ghorbani, M., Keramati, M.R., and Jafarian, M.J., (2002), "Performance evaluation of Tous Pazhouhesh personnel", first edition.
6- O.Odhiambo, G., (2005), "Teacher Appraisal: the Experiences of Kenyan Secondary School Teachers", Journal of Educational Administration , vol.43, No.4
7- John Simmons, (2003), An Expert Withness Perspective on Performance Appraisal in Universities and CooLLeges, vol.24, No.1.
8- Kenneth D.Peterson, (2003), Parent Surveys for Teacher Evaluation.
9- Mirsepasi, N., 1999, "Strategic management for Human resource and work relationships", Mir Publishment, 18th edition.

10- Mo'meni, M., (2006), "Modern subjects in operation research", Tehran university.
11- Nattavud Pimpa, (2005), Teacher Performance Appraisal in Thailand, Educational Reasearch for Policy and Practice.
12- Sa'adat, S., (2001), "Human Resource Management", Published Samt, First edition.
13- Saniei Monfared, M.A., 2004, "Measuring quality of collages in university with using MADM method", article.