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New Framework for Modeling Performance Evaluation for Bank Staff Departments

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Abstract: The current study proposed a multi-criteria fuzzy decision making model for performance evaluation of bank staff departments and presented a new methodology. The dimensions of this model were principally based on Balance Score Card model. In order for the drawbacks of this model to be overcome, multiple criteria in decision making were taken into account. In proposing the model, initially some performance appraisal indicators were extracted from the literature of research studies and the experts' opinions. Subsequently, using questionnaire and factor analysis as instruments for screening, some indicators which fit better to bank conditions were chosen. Moreover, before taking the selected evaluation indices into the model, their relative weights were estimated using fuzzy analytic hierarchy process. Two instruments of MCDM such as SAW and TOPSIS were employed for performance ranking of staff departments. The methodology, presented in this study, brings the vital facets of the model to light and helps to bridge the gap among staff departments for accomplishing more ideal level of performance.

Key words: Performance evaluation- decision making techniques- BSC.

INTRODUCTION

Along with the changes in today's business world, the activities of human resources have changed from "personnel management" to "human resource management", consequently, the strategic human resource management has changed, for the reason that, inappropriate human resource management would disorder the organization's productivity.

As the most important and valuable capital of an organization, human resources are thoughtful and organized agents that are able to create a powerful and active organization by optimum use of other resources. It is apparent that an efficient employee, by his/her will power and valuable experiences, can change everything in favor of the society, work place, and him/herself. Human resources are so important in organization that they are designated as internal customers. Moreover, it can be claimed that personnel satisfaction, customer satisfaction, and organization performance are related to each other (Loveman, 1998). Meanwhile, one of the strategies that lead to the performance improvement and staff satisfaction increase is an accurate performance evaluation.

Performance evaluation is the process of measuring performance in the executive systems which is based on a framework of management's principles and scientific concepts to fulfill the organization objectives and functions as the administrative programs (Hingoft, 2000; Paddock, 1997). Performance measurement is a systematic effort with the purpose of discovering to what extent the services meet the people's needs, and to what extent it has the ability to meet the needs (Halachmi, 1999).

Furthermore, performance evaluation is an effective tool in human resources management that if it is administered accurately, not only the organization objectives with the desired efficiency could be materialized, but also organization's real interests could be guaranteed. The organization could be studied by assuming a triangular shape with three dimensions of functions, processes, and objectives and missions. Accordingly, the process of performance evaluation could be regarded in three steps:

- The evaluation of individuals' performance in the organizations
- The evaluation of processes that perform the performance in the organization
- The evaluation of organizational mission and objectives.

The middle of 90s witnessed the climax of performance evaluation-related debates. Between 1994 and 1996, the number of articles published in this field was 3615, and in 1996, the books were published with the rate of, approximately, one per two weeks (Folan & Brown, 2005). Chronologically, performance evaluation literature may be divided into several parts. In the 70s, some researches studied the way organizations used accounting systems, particularly budgeting, for performance measurement. In the 80_s, budgeting processes and their effects on performance were investigated, and from the early 90_s, researches in the field of performance measurement started formally (Bititci, 2002).

Considering the weaknesses of performance evaluation, currently, authors and experts of human resource management recommend the performance management system instead of performance evaluation. For example, in 1992, Williams and Fletcher identified the performance evaluation as a necessity; nevertheless, they found it

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merely as one of the individual factors for a good performance management system. As Connak points out, in 1900s, a considerable evolution from performance evaluation towards performance management has occurred. Ulrich (1998) believes that, the experts of human resources should be both reliable and active; they should be trustworthy, respectable, admirable, and good listeners, and above all, they should have a deep insight.

To date, each of the various models that have been presented for organizations' performance management has some strengths and weaknesses, which main reason can be attributed to contingencies and inter-organizational or inter-societal differences. Furthermore, the introducers of the models have taken some specific aspects of the organization into consideration, according to their own knowledge, experience, and skills.

Among the approaches, we can refer to ratio analysis, total output analysis, hierarchical process, data envelopment analysis, Delphi technique, and regression analysis of European Foundation for Quality Management, Balance Score Card, Corporate Excellent Diagnosis, Strategic Cost Reduction and Performances Improvement, and Malcolm Baldrige models. Each of the approaches has its own specific concepts, objective, advantages, and disadvantages (Dessler, 2000), and have been used extensively in recent decades. However, in some occasions, they have not been adaptable to the differences and changes in the environment. Consequently, the complete use of the previous performance evaluation criteria and meeting the present changeable conditions has got impossible.

Balance Score Card:

The BSC is one of the performance evaluation models which have been of great application over recent years. Robert Kaplan and David Norton, two professors of business department in Harvard University, by publishing an article in the journal of Business Review Harvard in 1992, introduced the model, for the first time, as a modern managerial instrument for strategy development and performance evaluation.

BSC ties together those multiple pertinent objectives which institutions should achieve based on their innovation and invisible capabilities for competitive advantages. This method turns mission and strategy into targets and criteria which can be classified in four different perspectives, including: learning and growth, internal business processes, financial and customer perspectives (Kaplan & Norton, 1992).

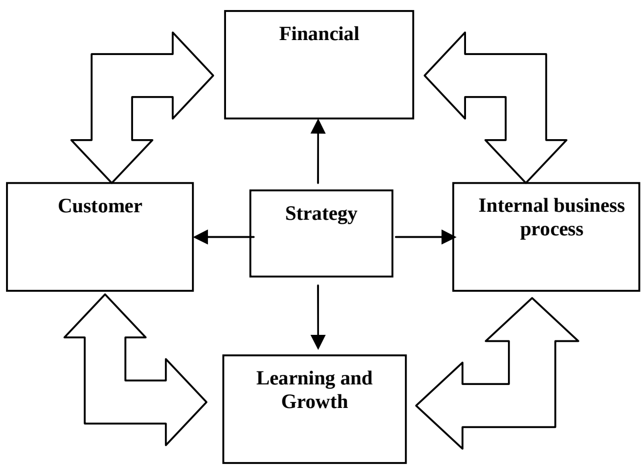

Fig. 1: Different aspect of balanced scorecard.

Balanced scorecard, is a widely-used performance measurement tool, aiming at planning and controlling organization activities for achieving organization objectives (Davis and Albright, 2004; Lawrie & Cobbold, 2004; Pinero, 2002), which puts emphasis on both financial and non-financial aspects, long term and short term strategies, as well as internal and external indicators of business.

The model, taking into account the limitations of performance evaluation with the models that hinge on financial indicators, and supplementing strategies formulation with corporate activities such as communicating with customer, innovation, staff training, and processes, has gained a wide use.

On the other hand, the incremental use of BSC around the world (Nilsson, and Kald, 2002) has made its weak and strong points appear, and entailed conduction of numerous studies on the issue. The evidence obtained from these studies has confirmed the efficacy of BSC in private and public sectors, for instance two surveys results have revealed dissatisfaction of organization branch managers with BSC. Moreover, 48% of respondents have disagreed with fairness of BSC performance evaluation. It could be concluded that BSC might not lead us to the achievement of strategic and organizational objectives (Kaplan and Norton, 1992).

Some reported shortcomings for BSC:

A. Significant contradiction and tension among managers: implementing partial patterns because of impreciseness, subjectivity and verbal of the indicators in defining reinforcing quantitative indicators (Norreklit, 2003).
B. In the case BSC could be of use that the organization under study is defined in terms of strategy and vision.
C. BSC comes short of defining a set of quantitative indicators for stabilizing performance values, either at an individual level (i.e. performance indicator) or integrating indicators.
D. Because of tailoring criteria to the organizations strategies, putting model into practice is a cumbersome task.
E. BSC's results are integrated subjectively by users (Sue *et al*., 2003).
F. Regarding the hierarchical relationship among defined aspects, the independent examination of domains is not feasible.
G. Having no scoring system.

As one of the financial and service institutions, the bank finds its future objectives' actualization in line with observing the performance of human forces who work in different positions and places.

Staff departments are among the critical and highly effective positions in any institution, particularly financial institutions as banks. The staff departments' performance directly affects the operational departments' performance, hereupon, influences the bank's performance and amount of deposits, and as a bridge between operational and top managements facilitates the fulfillment of the bank's objectives. Therefore, it seems reasonable to say that management of these individuals performance is more important than performance management of any other positions. Additionally, performance evaluation can remove problems associated with payment promotion, responsibility measurement, giving feedback, and encouragement, and consequently, it leads to the increase of internal motivation of these departments' employees.

Therefore, presenting a framework that:

1. accurately makes the performance management possible,
2. keeps pace with new conditions and changes, and
3. is approved by managers and executors.

could have a significant effect on raising productivity and bank performance measurement. Moreover, performance evaluation can be helpful in determination and examination of banks' action programs and activities' pertinence, efficiency, and their impact on organizational effectiveness.

Proposed Model:

The purpose of performance evaluation of a management technique is to control the project's progress and to evaluate the efficiency and effectiveness resulted from performing the project (Akalu, 2003), and frequently have had considerable impacts on organizations' performances and achievements. Consequently, approaches and tools of measuring this performance is a significant field which is of the interest of the scholars and researches in organizations.

However, the problem is that the performance evaluation models in management literature assume, in an implicit way, that the tasks' criteria are distinct and standardized, while, in the majority of systems, specially professional and service work, the judgment requires allocating enough time for completing every task (Hopp *et al*., 2007) and also selecting the relevant criteria for its evaluation. TaHo and Wu (2006) conducted the performance evaluation of banks by using market stocks and through correlation analysis approach of Grey or GRA. By studying industry and trade, they selected indicators and implemented them to evaluate the relative performances of Australia's three large banks.

On the other hand, the debate of selecting reliable indicators and judgment on their importance size possesses some ambiguities and contradictions that have originated from the human differences. Accordingly, some taste differences about the performance evaluation indicators and their executive systems emerge which cause some conflicts in workplace. Furthermore, in the typical performance evaluation models, indicators mainly have not been defined based on organizational strategies and objective, as a result, they entail some problems in practice. Rinalini and Noth (2006), in their study, evaluated the activities of investigation and development organizations, using a comparative approach,

The study of Lee *et al*., (2008) on combining the fuzzy AHP and balance score card (BSC) approaches was a step towards solving the problem of judgment on the indicators.

Therefore, in this article, for the staff departments' job value and the necessity of evaluating their performances, it has been attempted to develop a model that is consistent with the bank's objectives on the one hand, and is in line with the departments' activities, on the other hand. Moreover, it has the capability to be revised, corresponding to the environmental or task changes.

Managers mainly are interested in evaluating the performance of processes according to different multiple criteria.

Performance evaluation is a crucial means of continuous improvement for maintaining the competitive situation and performing an important role in the world of communications and technology. Performance evaluation is a positive force that conducts every business towards continuous prosper and progress in its competitive business environment.

Performance evaluation contributes to:

A) Revealing the strengths and weaknesses of a company's processes and activities.
B) Preparation of the company to meet the costumers' requirements.
C) Provision of chances for modifying the present processes and creation of new products and services (Zu, 2009).

According to the above mentioned points, the following outcomes could be expected from the model:

1) The criteria of staff departments' performance evaluation from the bank managers and experts' point of view.
2) The criteria of performance evaluation of staff departments from the viewpoint of the departments' administrators themselves.
3) The combined indicators of the staff departments' performance evaluation.
4) The weights of each performance evaluation indicator from the staff departments and the bank managers' perspectives.
5) The possibility of updating the indicators in various time periods with regard to environmental or task changes.
6) A comprehensive model for the staff departments' performance evaluation.

Modeling Assessment Methodology:

Primarily, according to the related literature, the bank's missions, and the bank's experts, some primitive variables is determined and distributed as the primary questionnaire. Based on this questionnaire's results, the main under focus dimensions in the staff departments' performance evaluation can determined by selecting variables with the explained variance on the basis of factor analysis. Subsequently, they should give to the relevant staff as the second questionnaire. It should be mentioned that, the primitive indicators explained in the model, are in the exploratory-analytic form, which will selected after performing factor analysis, and distributing among staff departments. Additionally, after ranking, by using the TOPSIS approach, (Figure 3) a correlation test will be administered between these departments' indicators and the bank managers to reveal the possible differences between the two groups on the final indicators of evaluation.

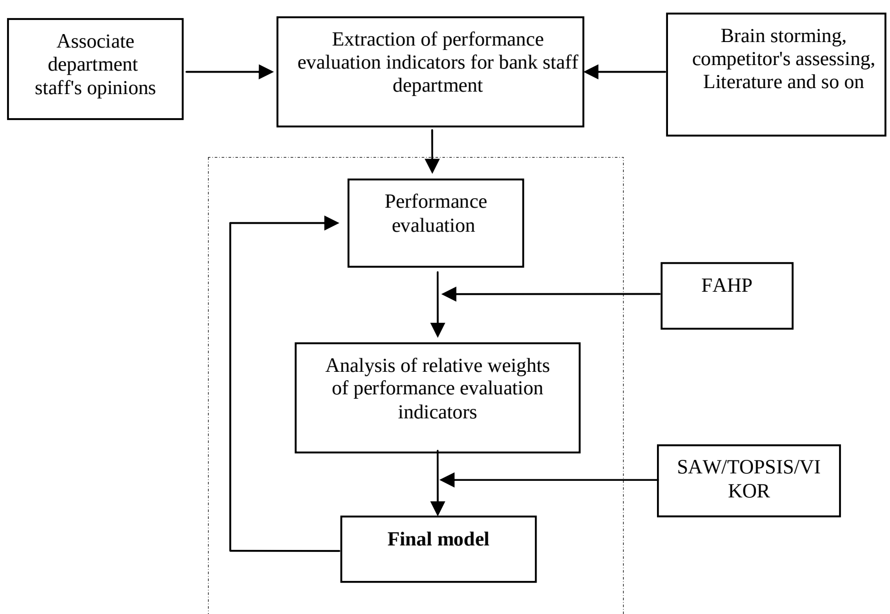

Fig. 2: The framework of performance evaluation in the present study.

In the following, the proposed framework is elaborated in details:

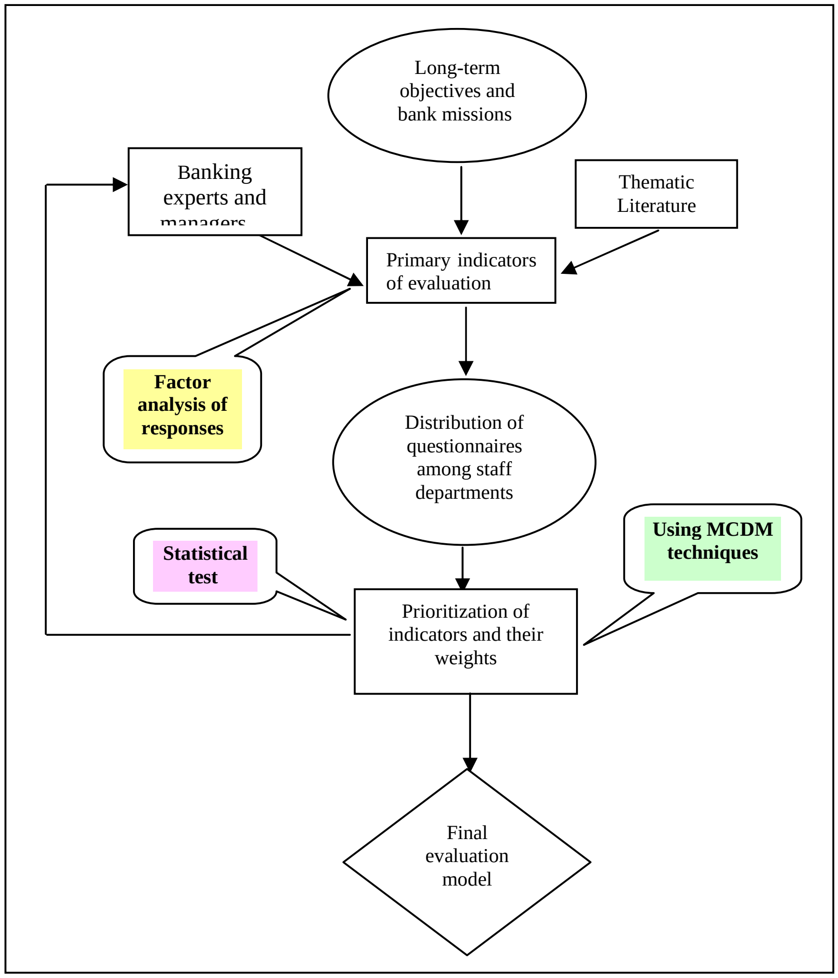

Fig. 3: Modeling deployment methodology.

Principal component analysis with VARIMAX rotation can be used for identification of factor dimensions. For assessing the reliability of the criteria, Cronbach's alpha is used for stability of constituent variables for each factor. And only those variables that had correlation coefficient higher than 0.5 are accepted in order to confirm structural reliability. The alpha Coefficient for internal consistency of variables of every factor is 0.7 or above it, to correspond to Nunally's criterion (1978).

These factors play a crucial role in taking the next step, i.e. using MCDM techniques.

The Kaiser-Meyer-Olkin measure of Sampling Adequacy and the Bartlett test of Sphericity are conduct to examine the fitness of the data. The results of both above –mentioned tests imply the appropriateness of factor analysis for the present study.

The model was initially prepare according to evaluation criteria, subsequently weighting of the indicators is done by fuzzy analytic hierarchy process. Hereupon, based on the obtained weights, multi-criteria decision making (MCDM), as tools of analysis, provide us with indicators for ranking, the improving the banking performance and choosing the best activities.

For the purpose of minimizing the vagueness of performance evaluation, the fuzzy model is used in the present study. The expressions such as "rarely", "probably" and "most probably" are used in the daily conversation of people and cause vagueness and impreciseness of their definitions. Zade's fuzzy set theory (1965), as a concept in the scientific environment, has been applicable for other sciences. It has been considered as a useful means for human activities in uncertain environment and vague information. In the current study, by using fuzzy theory, the effort has been made to confront subjective judgments in evaluations.

Conclusions:

This paper provided an overview on the performance evaluation and the most relevant models specially BSC. We addressed the weaknesses of BSC and the most critical problem of other models i.e. “measuring”. We proposed a new model based on quantitative and qualitative measures. These measures were combined into a model and then were assessed with MCDM and statistical methods.

One of the hot debates on the performance evaluation is the role of top and down units/departments in hierarchy which has a sizable effect on the performance of the department under evaluation. For overcoming this problem, multi criteria decision making by using the effect of other departments in developing the indicators can increase the comprehensiveness of this model. Integrating experts' opinions, the main shareholders and missions in developing indicators can offer more reliable and general guideline for performance of departments and making the banks mission and objectives in line with departments'. This could be fulfilled as a result of the framework that indicators offer for achieving targets.

We used fuzzy model to solve ambiguity and impreciseness of measuring. Also, at the end of process, we designed a feedback procedure and presented modeling deployment methodology to ascertain the effectiveness of model and its data measuring.

Finally using statistical techniques in examination of the model's performance, we made our attempt to increase its preciseness and generalizability. Meanwhile, we identified some probable shortcomings in developing the indicators which would facilitate review process.

The presented methodology may be useful to new performance evaluation modeling for banking and service organizations.

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