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TABLES OF CONTENTS

**INAUGURAL LECTURE
FOR OPENING THE ACADEMIC YEAR 1996/1997**

Zbigniew Przybyła

EURO-REGIONALIZATION: PROCESSES IN POLAND AND THE ROLE OF THE WROCLAW UNIVERSITY OF ECONOMICS IN TRANSBORDER COOPERATION	7
---	---

I. ARTICLES

Anna Zielińska-Głębocka

UNEMPLOYMENT IN THE EUROPEAN COMMUNITY IN THE LIGHT OF STRUCTURAL CHANGES	13
--	----

Danuta Strahl, Michał Montygierd-Loyba

SOME REMARKS ON TRANSFORMATION OF EMPLOYMENT DISTRIBUTION IN RELATION TO A PATTERN ECONOMY	37
---	----

Jerzy Rymarczyk

PROTECTION OF THE EC AGRICULTURAL MARKET VS. THE AGRICULTURAL AGREEMENT OF THE URUGUAY GATT ROUND	45
--	----

Krzysztof Jajuga, Danuta Strahl

STRUCTURAL TRANSFORMATION MODEL FOR POLAND UNTIL YEAR 2000	61
--	----

Bożena Klimczak

FINANCE IN LIGHT OF ETHICS	67
--------------------------------------	----

Aldona Kamela-Sowińska

GOODWILL UNDER THE NEW POLISH ACCOUNTING LAW	79
--	----

Mirosława Kwiecień

THE FIRST POLISH ACCOUNTANCY LAW VS. INTERNATIONAL ACCOUNTING STANDARDS	87
--	----

Grażyna Osbert-Pociecha

DIVESTITURE – STRATEGIC RECOMMENDATIONS FOR POLISH ENTERPRISES IN THE PROCESS OF ECONOMIC TRANSFORMATION	95
---	----

Kazimierz Perechuda

STRATEGIC MANAGEMENT OF THE BUSINESS PROCESS REENGINEERING	103
--	-----

<i>Vesna Žabkar, Janez Prašnikar</i> GRUNDLAGEN DER ERFOLGREICHEN MARKETINGSTRATEGIEN FUER KLEINBETRIEBE IN SLOWENIEN	111
<i>Ewa Konarzewska-Gubala</i> SUPPORTING AN EFFECTIVE PERFORMANCE APPRAISAL SYSTEM	123
<i>Jacenta Łucewicz</i> ORGANIZATIONAL CULTURE AS A DETERMINANT OF MANAGERS' AT- TITUDES TOWARDS SUCCESS	137
<i>Grzegorz Betz</i> REMARKS ON THE PROCESS OF MANAGING CHANGE IN ORGANIZATION	145
<i>Halina Towarnicka</i> INVESTMENT STRATEGY OF INDUSTRIAL ENTERPRISES DURING THE ECONOMIC TRANSFORMATION	157
<i>Paweł Dittmann</i> SOME REMARKS ABOUT ESTIMATING PARAMETERS OF SEASONAL MO- DELS	165
<i>Józef Dziechciarz, Marek Walesiak</i> MODELLING THE COLLEGE STUDENT CHOICE VIA CONJOINT ANALYSIS	175

II. REVIEWS AND NOTES

Ryszard Antoniewicz, Andrzej Misztal: MATEMATYKA DLA STUDENTÓW EKO- NOMII. WYKŁADY Z ĆWICZENIAMI [MATHEMATICS FOR STUDENTS OF ECONOMICS. LECTURES AND PRACTICE MATERIALS]. Wrocław 1995. (<i>Tadeusz Stanisław</i>)	185
Ryszard Bról (ed.): GOSPODARKA LOKALNA [LOCAL ECONOMY]. Wrocław 1995. (<i>Eugeniusz Wojciechowski</i>)	186
Henryk Jagoda, Ber Haus: HOLDING: ORGANIZACJA I FUNKCJONOWANIE [HOLDING COMPANIES: ORGANIZATION AND FUNCTIONING]. Wrocław 1995. (<i>Wiesław M. Grudzewski</i>)	187
Stanisław Kiełczewski: POLITYKA PRZEMYSŁOWA POLSKI W OKRESIE TRANS- FORMACJI SYSTEMOWEJ [POLISH INDUSTRIAL POLICY IN THE PERIOD OF SYSTEM TRANSFORMATION]. Wrocław 1995. (<i>Jan Wojewnik</i>)	188
Mirosława Klamut: EWOLUCJA STRUKTURY GOSPODARCZEJ W KRAJACH WYSOKO ROZWINIĘTYCH [EVOLUTION OF AN ECONOMIC STRUCTURE IN HIGHLY DEVELOPED COUNTRIES]. Wrocław 1995. (<i>Antoni Fajferek</i>) . .	189

Antoni Smoluk: METODY NUMERYCZNE. ZADANIA [NUMERICAL METHODS. PROBLEMS]. Wrocław 1995. (<i>Tadeusz Stanisławski</i>)	190
Jerzy Sokołowski: ZARZĄDZANIE PRZEZ PODATKI [MANAGEMENT THROUGH TAXATION]. Warszawa 1995. (<i>Andrzej Kierczyński</i>)	191
III. HABILITATION MONOGRAPHS (1995–1996) (summaries)	193
IV. CHRONICLE (1995–1996)	197

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SUPPORTING AN EFFECTIVE PERFORMANCE APPRAISAL SYSTEM

The performance appraisals are still the source of considerable dissatisfaction for both managers and employees. Drawing on own research, experience and recent literature study this paper offers the multiple criteria decision aid (MCDA) approach for establishing an effective performance appraisal system. The key elements of any appraisal process and requirements of an effective performance appraisal system are identified according to the current theoretical and practical issues related to human resource management. Then the model of performance appraisal is developed using the author's concept of bipolar reference system of performance profiles. Performance appraisal is linked to the organization strategy by setting down desirable and not-acceptable work results that must be achieved or avoided if company objectives are to be met. Since the system's results should be used in personnel decisions the extensive implementation of the MCDSS BIPOLAR is proposed. Introducing the outranking preference structure into the set of evaluated objects (individual or team performances) BIPOLAR answers the question: how good or/and how bad is employee performance with regard to the expected company results. Performance monitoring is provided in any moment of evaluation period by the visualization of the comparative appraisal results.

1. INTRODUCTION

Performance appraisal is the process by which organizations evaluate job performance. Employees seek feedback on their performance as a guide to future behaviour. Supervisors and managers need to evaluate performance in order to take decisions and to intervene with appropriate actions. The following uses of performance appraisal information are mostly listed (Werther and Davis 1989; Murphy and Cleveland 1991): • compensation adjustment • performance improvement • staffing and promotions decisions • training and development needs • informational improvement • job design adjustment.

Further, one emphasizes the crucial role of performance appraisal system in an organization's efforts to gain competitive advantage (Noe et al 1994).

Many organizations have recognized the importance of designing and implementing (a performance appraisal system. Allan (1994) surveys some contemporary examples of effective systems implemented in such organizations as: PepsiCo, Xerox Corporation's Reprographic Business Group, Bank of

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America, Digital Equipment Corporation, Ensoning Corporation, American Cyanamid Company. Different approaches have been developed in response to organizations' specific needs and circumstances.

However performance appraisal is still a source of considerable dissatisfaction in many firms, for both managers and employees. Since performance appraisal has the potential of benefiting the enterprise, what might be done to overcome the weaknesses of many appraisals?

The main purpose of this paper is to propose to the appraisal system designers (scholars and practitioners) the Multiple Criteria Decision Aid (MCDA) approach for establishing an effective performance appraisal system. The MCDA approach, has been yet successfully implemented in teachers' performance appraisal procedure (Konarzewska, Jakubowicz 1990; 1991; Konarzewska 1991).

The paper consists of four sections. In section 2 the appraisal process is described. In section 3 the requirements of effective performance appraisal system are identified to structure the problem of designing the appraisal system. Then in section 4 the conceptual model of performance appraisal is developed using the author's concept of bipolar reference performance profiles and multiple criteria performance evaluation approach. Finally, general recommendations are offered to use the MSDSS BIPOLAR for performance monitoring and other managerial purposes.

Some information about the experimental research project on the appraisal system in the Polish fashion industry and concluding remarks close the paper.

2. PERFORMANCE APPRAISAL PROCESS

There is a consensus among the academicians and practitioners of organizations that the organization cannot have just any performance appraisal system. It must be effective and accepted. Are there any hints for developing or selecting an effective performance appraisal system? What are the crucial elements and features of such a system? Before we try to answer these questions let us identify the key elements of any formal performance appraisal process and let us characterize the commonly used appraisal methods.

The most generally understood use of the term "performance" (on micro-level) is offered by industrial and organizational psychology by the basic postulate:

$$\text{Performance} = \text{Worker} \times \text{Work Environment.}$$

In other words, performance requires both a person and an environment, and they must interact in some way (cf. Morf 1986, p. 15).

In practice, the work performance is usually considered to be “a function of” rather than “equal to” the product of the terms in the equation above. More operational definitions refer performance to the results of an activity, e.g.: “Performance on production jobs is the quantity of items produced that meet quality specifications, and performance on non-production jobs is the number of units and quality of service rendered”:

The extremely operational definition just says: “Performance is what the supervisor’s rating measures”. But the question is: do they measure what they are supposed to measure?

According to the definition given in the textbooks performance evaluation (performance appraisal) “is a systematic process designed to assess the extent to which employees are performing jobs effectively” (Milkovich, Glueck 1985, p. 363).

Performance evaluation can be viewed as a process consisting of two main phases (see Figure 1):

1) designing phase and 2) implementation phase.

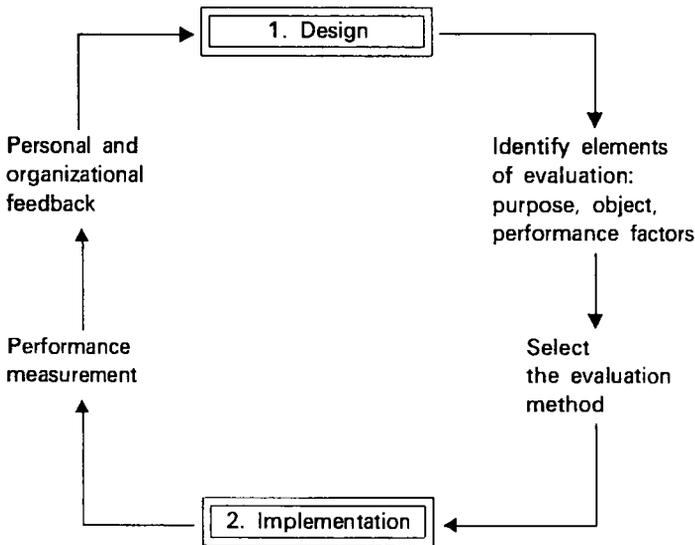


Fig. 1. Performance Evaluation Process.

Source: Milkovich, Glueck (1985).

The major decisions involved in designing performance evaluation concern:

- the object of the evaluation: what is an activity of which the performance is to be measured?
- the purpose of the evaluation: what are the questions to be answered by the formal performance appraisal?

- the performance measures/factors: what are the criteria in terms of which the object is to be evaluated?
- the selection of the appraisal method: which procedures should be used to fit the organization, the job and the individuals involved?

The importance of performance evaluations has led academicians and practitioners to create many methods to appraise work performance. These techniques are grouped into those that focus on past performance and that are future-oriented (see Figure 2).

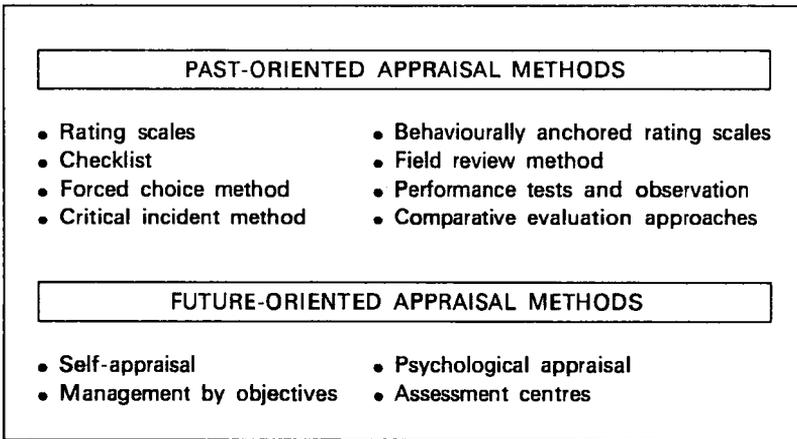


Fig. 2. Performance Appraisal Techniques
Source: Werther et al 1989.

Past-oriented approaches have the advantage of dealing with performance that has already occurred and, to some degree, can be measured. Future-oriented appraisals focus on future performance by evaluating potential or setting future performance goals. The selection of an appropriate appraisal method is closely related to the results of the identification subphase.

In the implementation phase we can distinguish at least two main subphases:

- Measurement of actual values of performance criteria according to the selected method, and
- Personal and organizational feedback.

The interpretation of performance data and the use of them in decision and information processes in the organization is the one of the crucial elements of the process (see Figure 3).

In fact the anticipated use of the evaluation information should be the “opening” decision for designing and managing the appraisal system.



Fig. 3. Uses of Evaluation Information

Source: author's own.

3. SOME POSTULATES OF EFFECTIVE APPRAISAL

1. The first requirement of an effective evaluation system is that it must produce the kind of data suited for the purpose of the evaluation (all sources).

Example: If the primary purpose of the evaluation is reward, then job-related results are the criteria. Frequently, this implies a numerical rating of performance. The various rating scales, performance tests or MBO method provide such numerical ratings.

2. The performance factors (criteria) must be tied to the organizational objectives (Milkovich, Glueck 1985) and strategies (Noe et al 1994; Allan 1994).

Comment: Organization typically follows some strategy or strategies tailored to its specific situation and mission. Strategies are implemented by identifying the short-term objectives and then individual results and behaviours needed to carry out the strategies. Increased sales, increased market share, improved quality of services, return on investments, cost minimization – whatever the objectives, they must get translated into specific behaviours and/or results for each job. To them should be related the criterion measures in effective performance appraisal system.

3. Rating factors should be as objective as possible (Allan 1994).

Comment: The oldest and widely used appraisal method – *rating scale* requires the rater to provide a subjective evaluation performance on each criterion corresponding with general personality characteristics: initiative, dependability, cooperativeness, sociability etc.

Dimensions such as initiative and dependability may be useful and appropriate if they can be expressed in terms of behaviour or work result.

4. Since success on the job is due to a number of factors, multiple criteria are necessary to measure performance completely (Landy and all. 1982). The relative importance of the criteria may be a topic of negotiation between employer and employee.

Example: Multiple criteria used in an MBO Evaluation for Salespersons (Milkowich, Glueck 1985, p. 383): number of sales calls, number of new customers contacted, number of wholesalers stocking new product, sales of specific products, customer complaints/service calls, number of sales reports in home office within one day of the end of the month.

There is a list of requirements related to implementation phase (Allan 1994), e.g.:

5. The appraisal system should be practical:

- easy and economical to operate,
- performance rating should be documented,
- should provide for performance monitoring, a review or appeals process etc.

6. Appraisal should be free of bias.

7. The system results should be used in decisions and in communication within the organization.

The last requirements corresponds with the first one and emphasizes the role of organizational and personal feedback in the performance improvement process.

4. MCDA APPROACH TO PERFORMANCE APPRAISAL

The purpose of this section is to propose the multiple criteria analysis model for structuring and designing the performance evaluation system. The model seems to follow the most important requirements listed above and avoid some shortcomings of other appraisal methods. The microcomputer implementation of method allows immediate analytical and decision support in performance evaluation process.

The multiple criteria decision aid model BIPOLAR (for discrete alternatives) is to be applied to the performance evaluation problem. BIPOLAR and its microcomputer implementation (in form of a stand-alone MCDSS: BIPOLAR and OptiChoice) has been widely presented in Konarzewski (1989 and 1991).

Below we outline the BIPOLAR model approach without the formalizations and technical details.

Following the methodology just presented in section 2, let us assume that the primary use of performance evaluation data will be the reward system for employees in particular the company unit. The workers are performing different operations to complete the final consumer products. The skills and experience of performers are not equal. They complain about the lack of individual approach to work results appraisal and imperfect compensation system. It implies the numerical, result-related rating of individual performance and need official ranking of performers.

The BIPOLAR model requires to identify the following elements of the appraisal system:

- finite set of evaluated objects (since the number of performers is limited we will deal with a discrete set of performance objects),
- performance criteria (dimensions of performance objects; some of them have cardinal measures of performance like the number of product units per day, some use ordinal scales, e.g. complexity of operation),
- particular characteristics of criteria (the criteria evaluations are to be maximized or minimized or be as close as possible to some desirable values),
- weights of relative importance of the performance criteria (the relative importance of criteria may be a topic of negotiation between employer/rater and employees),
- outranking threshold value (or accordance level sets what fraction of all criteria is necessary to establish the final ranking) and
- bipolar reference system of performance settings.

The BIPOLAR model's distinctive feature is that users of performance appraisal system (employer and employees) are able to discuss and to determine two sets of reference performance profiles: desirable and non-acceptable ones. Both reference sets of objects: good and bad ones should reflect the employee aspirations and constraints as well as organizational objectives and anti-objectives. *Good and bad* reference performance profiles should be formulated using the same performance factors and criteria scales that are used to measure evaluated performance objects (in fact in the measurement phase we produce three evaluation matrices).

The concept of bipolar reference performance settings allows to link the appraisal system to company strategy by setting down at the beginning of a fiscal year (or other evaluation period) the work results: desirable and not-acceptable profiles of performance that must be achieved and/or avoided if company strategies are to be followed.

The general idea and key elements of performance appraisal system based upon the bipolar reference performance profiles is depicted in Figure 4.

In some aspects BIPOLAR performance evaluation method is similar to another individual evaluation technique in use today, known under the name:

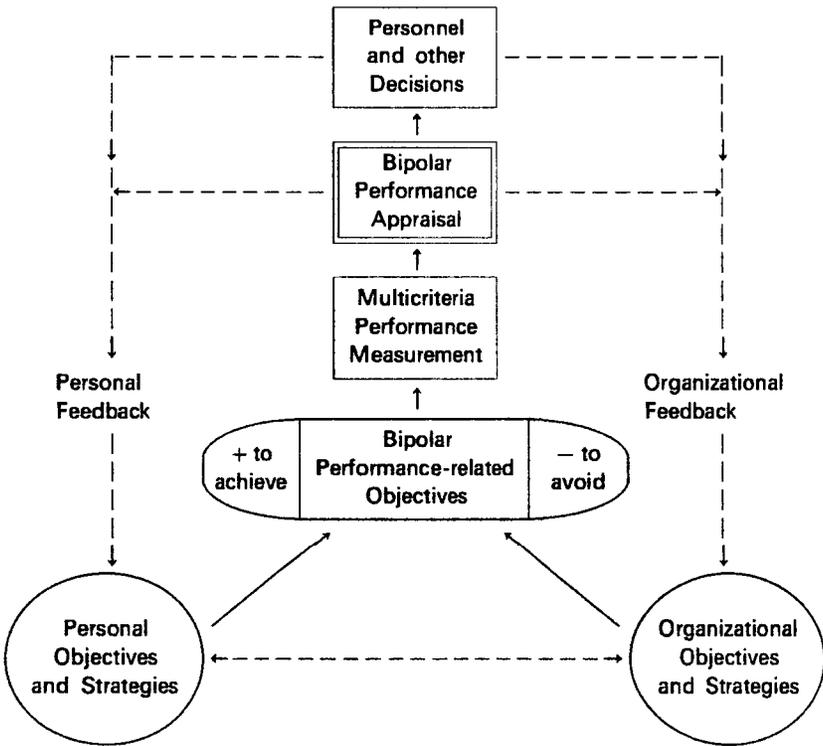


Fig. 4. Key Elements of Performance Appraisal System based upon the Bipolar Reference Performance Profiles
Source: author's own.

Management by Objectives (MBO) (listed among future-oriented appraisal methods in Figure 2). In this system the supervisor (rater) and employee to be evaluated also jointly set objectives in advance for the employee to try to achieve during a specified period (but only the desirable ones).

"The technique encourages, if not requires, them to phrase these objectives primarily in quantitative terms. The evaluation consists of a joint review of the degree of achievement of the objectives." [...] "This technique has become very popular because of the high degree of employee involvement" (Milkovich, Glueck, 1985, p. 381). In practice MBO programs have encountered difficulties (Werther, Davis, 1989, p. 321). The reason is that frequently the objectives are too ambitious and the result of performance evaluation is very frustrating for employees.

In our approach the bipolar objectives setting tries to eliminate the effect of over and under-estimation of objectives. The bipolar reference system of performance profiles is a tool of the modelling of the employee motivations to work.

The coordinate rS informs what position the evaluated object has with regard to the reference objects associated with personal and organizational success (e.g. *overgood, incomparable...*) and how intensive this position is.

Analogously, the coordinate aF describes the object position with regard to the reference objects associated with company failure (e.g. *underbad, incomparable...*).

Both position characteristics: rS and aF introduce independently two partial preorders into the set evaluated individual performance objects. Considering the intersections of these two preorders the BIPOLAR system can be used:

- to sort the objects into some categories (mono- and bipolar-sorting) (see Figure 6 and 7),
- to rank them from best to worst (mono- and bipolar-ranking) (see Figure 8 and 9).

For reward decisions the most useful information we find in Figure 8 and 9. The information in Figure 6 and 7 may be useful for employee development program. Making reference to the requirements of effective appraisal system (section 2) we can say that the system appears to be practical: easy to operate, providing the documentation of performance subjective and objective data. Finally, it can serve as an important performance facts record in case of any appeals process.

BIPOLAR problem: Seamstresses' performance appraisal

Final Mono-Sortings		Result
pro-success	anti-failure	
class 1 : 3 7 9 10	class 1 : 1 2 3 4 7 9 10	
class 2 : 1 2 4 5 6 8	class 2 : 5 6 8	
class 3 :	class 3 :	
file : colthes F5 objects F1 help F2 prev F3 next ESC menu		

Fig. 6. MCDSS BIPOLAR Screen: Final Mono-Sortings
Source: author's software.

BIPOLAR problem: Seamstresses' performance appraisal

Final Bipolar Ranking	Result
order : 7 > 10 > 9 > 3 1 > 4 > 2 6 > 8 > 5	
<div style="border: 1px solid black; padding: 5px;"> <p>Final Bipolar Ranking is based on Bipolar Sorting and Total Achievement.</p> <p>Total Achievement = degree of reaching SUCCESS + degree of avoiding FAILURE.</p> </div>	
gile : colthes F5 objects F1 help F2 prev F3 next ESC menu	

Fig. 9. MCDSS BIPOLAR Screen: Final Bipolar Ranking
Source: author's software.

5. CONCLUSIONS

The paper reports the first results of a research project concerning designing of performance appraisal system in a Polish clothes manufacturing company. We have focused first:

- on the evaluation process structure,
- on the requirements of effective appraisal system and
- on the state-of-art in appraisal techniques.

Then we have presented the idea of multiple criteria performance evaluation system based on the BIPOLAR model and decision support system. This phase of general problem recognition allows us to think about the BIPOLAR implementation in a prospective way. The BIPOLAR performance appraisal system will answer the question: how good and/or how bad is an employee's performance with regard to the company strategy. The performance monitoring will be provided in any moment of evaluation period by the visualization of the comparative appraisal results.

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