

FUNCTIONAL DESIGN OF APPLICATION SUPPORTING PROCESS OF MANAGEMENT BY OBJECTIVES IN A UNIVERSAL COMMERCIAL BANK

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The paper contains a study of determinants in implementation of a tool supporting Management by Objectives process (MBO) in a universal bank environment. Solution described, based on “best practice”, takes into account both the bank's business model and its management processes routine, which the Management Information System is derived from, as well as selected aspects of organizational culture, which determine the choice of the functional solutions supporting processes performed in financial institution.

Keywords: Management Information System, Management by Objectives, Functional Design, Commercial Bank

1. Introduction

The Management by Objectives (MBO) theory was developed and popularized in the mid fifties of the last century by Peter Drucker [5]. Through decades of practice MBO system has been evolving dynamically driven by current needs of the organizations using it, however its basic principles are still valid. Classic literature provides many studies, covering also polemics between supporters and opponents of MBO (see in [4], [6], [7], [11], [12]). Nowadays most large organizations use centralized MBO model - based on setting ambitious but achievable strategic

objectives for entire organization and subsequent cascading them down the management structure, starting from Top Management down to the non-management staff (so called top - down approach). Interesting approach to MBO system implementation can be found in a study of D. Mc Conkey [8].

Properly designed and fully implemented MBO system not only increases motivation of the staff, but also effectively supports achievement of strategic goals of the organization. It enforces efficient and accurate planning of resources and activities, helps to focus attention on tasks crucial from the perspective of the enterprise as a whole, improves transmission of superiors' expectations to subordinates and facilitates their subsequent enforcement. It also extorts cooperation between interdependent or internally competitive organizational units and has a substantial impact on the Management Information System's (MIS) efficiency (clearly defined individual responsibility scopes supported by a formal delegation of accurate powers and bonus system become strictly complied in day to day business routine). Constant monitoring of performance makes MBO an excellent Early Warning System, that enables management immediate detection of threats in the budget execution at any level of organization and consequently taking corrective steps to assure achievement of required results. One of the key benefits of the MBO, however, is more fair (because based on pre-defined, clear and objective criteria) annual appraisal of employees that influence directly their annual bonus. Feeling of participation in decision-making created by the MBO significantly strengthens employees' motivation and creates among them belief that while performing works for the company they fulfill their own aspirations.

2. Conditions for MBO implementation in the bank

MBO system, as applied by banks, frequently has greater impact on the behavior of employees than the direct instructions issued by their superiors. In order to assure full utilization of its potential, the system should cover next to the delegated tasks also the aspects of their self-initiation by the MBO participants.

Information system in a large financial institution is usually quite complicated, because it consists of a number of IT tools dedicated to specific functions maintained by fully independent teams. A multitude of systems often leads to inconsistencies in their data processing methodologies and, consequently, different evaluation of the same operations. Therefore, to ensure effective measurement in area covered by MBO, most elements of the MBO model should be based on central MIS information structures, which usually combines comprehensive financial ac-

counting data with detail measurements of management accounting. Key Performance Indicators (KPI) used by MBO are obviously based on various measures. To ensure their comparability and additivity at different levels of the organization, their so-called normalization is advised (e.g. their values converted into degree of budget realization – expressed as a percentage or more common - in points).

In modern banking vast operational processes are still managed within historically shaped functions (e.g. Sales split by customer class: corporate, retail and private, independent risk and separate back office / support units), however, processes performed by non-business units are more and more often running entirely regardless the basic governance structure. As examples may here serve units dedicated to specific customers (e.g. requiring communication in a specific language), units in charge of certain distribution channels (Internet, Call Centre, Indirect Sales network), or specializing in development and management of products (e.g. Consumer Finance, Mortgages, Customized Corporate Banking Products), etc. Fully implemented MBO system should take into account not only existence of these responsibility centers and their impact on various areas of business but also formal and informal relationships between them.

Typical MBO model covers a few thousand job positions - broadly defined management and sales staff. Responsibility for maintenance of MBO process is normally shared (as per competence) between several business support units, e.g.:

- Business Controlling Units (in charge of setting KPIs, budget allocation among the subordinate organizational structures and communication with the participants of the MBO system),
- HR Division (in charge of legal regulations underlying the system, maintaining personal information and payout of MBO bonus),
- Finance Division responsible for the MBO as a whole (e.g. coordination of all sub-processes related to MBO and ensuring the correct and fair translation of the Bank's task into individual KPI sets of its employees).

3. Functional design of MBO application

3.1. Basic requirements

To ensure smooth operation of the MBO, its support by IT tools is required. MBO is a process running along and across the basic organizational structure of the bank and has to deal with many conflicts of interest between internal units (potentially mitigated by MBO targets – see [9], [14]). Classic MIS is not always able to

provide all the information required by the MBO. Therefore, the MBO Application should be on hand flexible enough to quickly and easily adopt the changes in the organization and on the other hand rigid enough to strictly enforce on MBO process participants obedience to predefined system policies and schedules. Its design should limit claims of highly influential managers on changes to the MBO system itself dictated by their particular short-term interests. The Application should offer to each group of its users a full feasibility for performing their MBO related roles while fulfilling all the technical requirements for data security.

3.2. Model description

MBO covers all workers employed on a basis of management contract. An integral part of the above agreement (called “technical note”) is renewed annually and includes a set of ca. 5 objectives measured by specific KPIs valid for a given reporting year. KPI values are a part of management reporting provided either individually to the employees concerned (personalized information) as well as to the Bank's organizational units (information free of confidential data) by the central MIS on a monthly basis, which allows managers to assess the effectiveness of performance and immediately respond to potential adverse trends. The same MBO plays a role of a classic early warning system. The final settlement of technical notes is made after closing of annual accounts and directly sets the amount of the individual annual bonus payable to each employee covered by MBO.

3.3. MBO process flow

Within the MBO process one can distinguish two groups of sub processes:

- System-related processes that define the process itself (Setup of technical parameters, Review of KPIs used in performance evaluation, Determining business positions) or adopt MBO to changes in the organization (Update of responsibility structures and employment data of MBO note holders),
- Operational processes associated with MBO cycle (Determination of KPI sets for business positions, Budget decomposition, Issuing technical notes, Performance monitoring, Annual settlement and Appeal consideration).

Due to the timing of operational processes shaped by their strong dependency on external processes (budgeting, external reporting) MBO process begins in September of the year preceding the reporting year and ends in September of the year following the reporting year which means a full process cycle of 25 months. The MBO Application must therefore simultaneously support three separate databases possibly operated under different rules each. Issues above are shown in Figure 1.

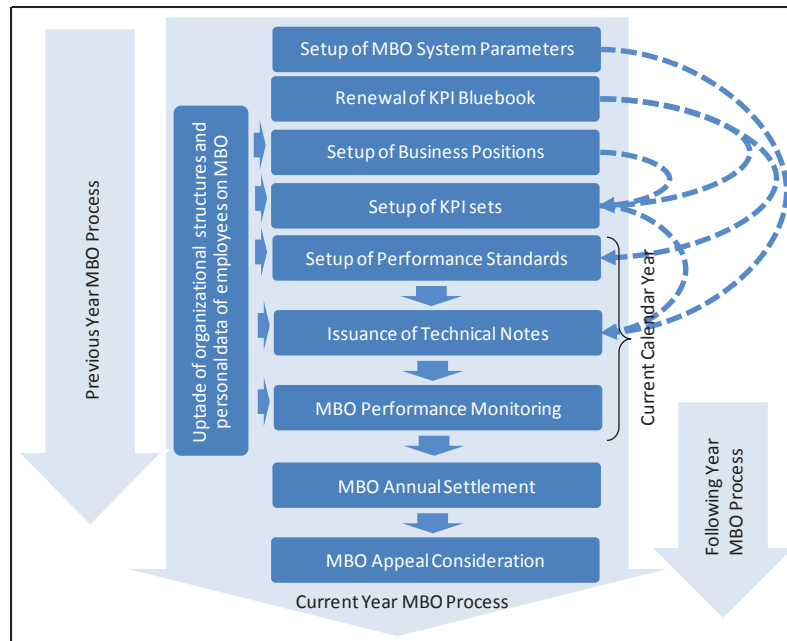


Figure 1. MBO Cycle Overview

The primary role of MBO Application is to provide an efficient, reliable and secure exchange of information between participants of the MBO process. Given its role of Decision Support System (DSS) played for Top Management it should produce ready for use executive reports in widely recognized format (e.g. power-point presentations).

3.4. MBO data flow model

Design of MBO Application should derived from identified decision-making points in the MBO System and the actual flows of information between them. To reflect diversity of roles played by and access to data granted to MBO process participants, the Application should offer its users personalized interfaces and ensure very restricted access to confidential data.

MBO system parameters are determined at the strategic level, often involving top management. They create a quantified framework within which the Application collects, processes and provides the data to each participant of MBO process. It is worth to highlight, that the Application may support the exchange of information between the key players at the stage of determining and approving chosen system parameters.

Typical flow of information and, consequently, the adoption of the basic parameters of the MBO system for a given year is shown in Figure 2.

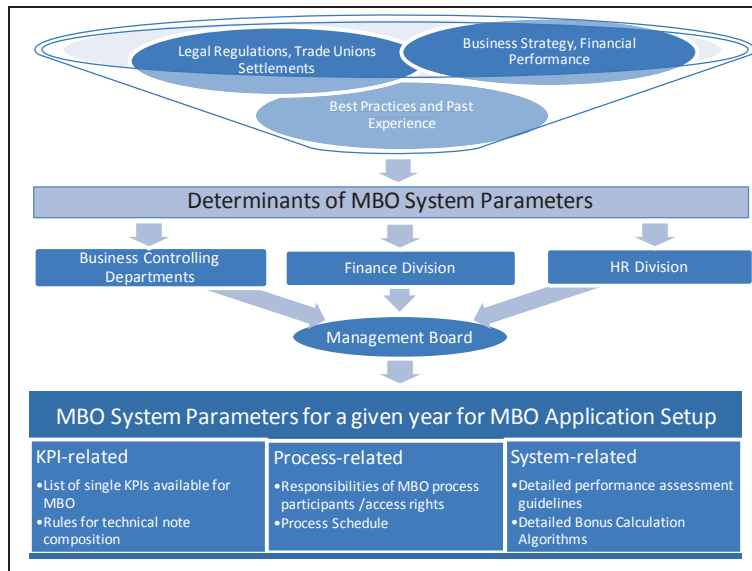


Figure 2. Set-up of MBO System Parameters

MBO KPI directory (so called “Bluebook”) contains a set of macrodefinitions ready for use in KPI calculation by a central MIS. Every year new KPIs may be added to the directory and existing KPIs may be modified as per current business needs. MBO Application must assure here smooth exchange and versioning of information and enforce timeliness of decision-making to allow time for required technical modifications to central MIS before the new MBO cycle starts. Typical flow of information aimed at renewal of MBO KPIs directory is shown in Figure 3.

Determining the typical responsibility scope of individual employees for the processes running often irrespective of the basic organizational structure is a basis of management accounting reflected in MIS. For MBO Application, however, business position (i.e., homogeneous group of employees performing essentially the same tasks on individual responsibility centers (e.g. portfolio of customers, branch, geographic region, product group, etc.)), is only a parameter used in technical notes issuing, hence they are determined outside the Application.

Having the business position defined, as a next preliminary stage of the cycle (See in [10]) MBO Application supports their enrichment with KPI sets (and weightings), which constitutes a base of synthetic KPIs (kept as a performance measure in central MIS and analytically shown in a technical note). Similarly to Bluebook renewal stage MBO Application must support here smooth exchange and versioning of information enforcing timely decision-making to allow time for technical modifications to the central MIS before the new MBO cycle starts. Typical flow of information at this stage is shown in Figure 4.

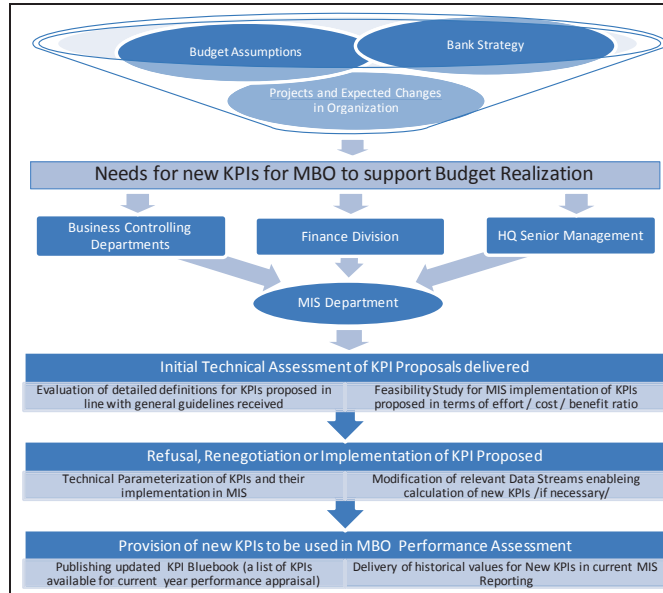


Figure 3. Renewal of KPI Bluebook

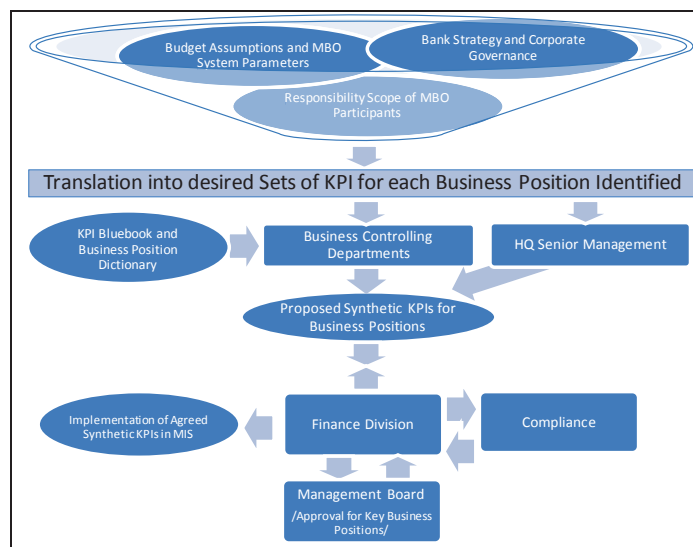


Figure 4. Setup of KPI sets

Next stage in the MBO process, decomposition of the Bank's budget (see [3]) expressed as KPI standards for all the identified responsibility centers, emphasizes the need for integration of MBO module with central MIS. MBO Application sup-

ports here only final verification of the already accepted standards. This phase is shown on diagram in Figure 5.

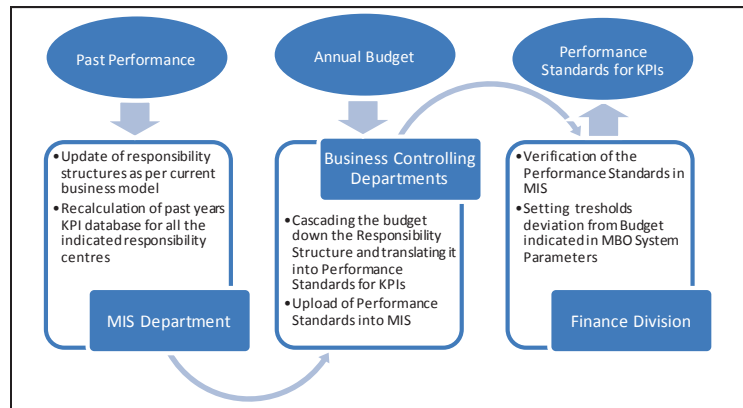


Figure 5. Setup of Performance Standards

The next stage of the cycle - issuing technical notes – requires from MBO Application purely technical combination of data and parameters from central MIS and HR systems as well as their distribution in predefined form (tables and official technical notes) for acceptance among MBO participants. As annual targets are accepted according to waterfall model applied on basic organizational structure, the crucial functionality of MBO application at this stage, next to assuring timeliness of the process and providing feedback on the status of individual notes, becomes proper authorization of acceptance. These relationships are illustrated in Figure 6.

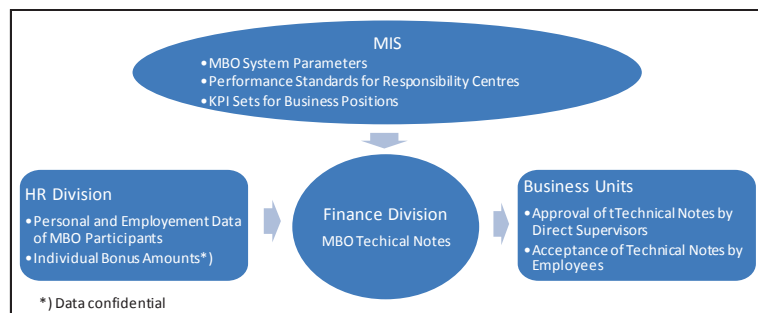


Figure 6. Issuance of Technical Notes

MBO performance is monitored on a monthly basis. KPIs are reported both in their base and standardized form as components of synthetic KPIs (personal reports for employees and per business unit in MIS). Next to the functionality of information sharing the MBO application (its analytical module) should enable creation

additional queries to the central MIS's KPI calculation modules that based on selected criteria in safe interaction with HR systems allow for producing forecasting scenarios and multi-dimensional analyzes of performance (see Figure 7).

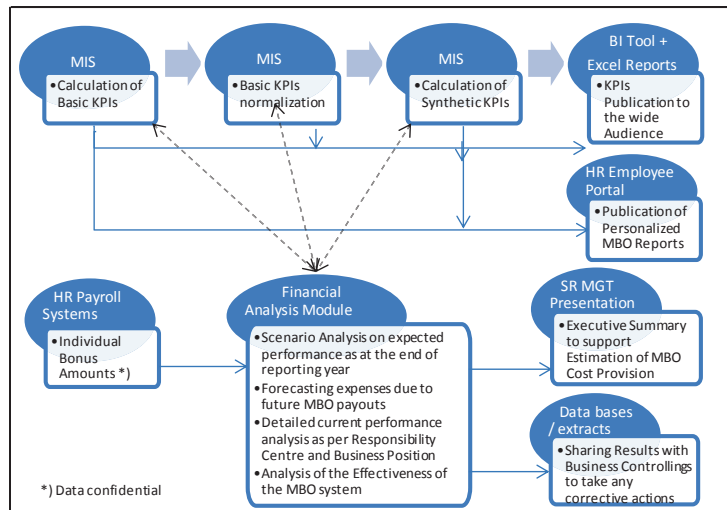


Figure 7. MBO Performance Monitoring

Annual MBO settlement also highlights the importance of close integration of the MBO tool with central MIS. KPIs dedicated personally to chosen employees (mostly qualitative – see in [2], [13]) which were not monitored via MIS during the year are collected using the information exchange facility of MBO Module by the Central MIS, where synthetic KPIs are adjusted accordingly to supply back the MBO Application with settlement data, which a safe interaction with HR systems generates and provides the employees with the final MBO settlement. Data flow at this stage slightly differs from the monthly monitoring solution, what is illustrated in Figure 8.

After receiving the settlement report employees are entitled to the challenge. Appeal handling should be fully supported by the MBO Application, which at this stage helps to authorize and exchange information. The appellant and the successive participants of the Appeal process can, and even should attach to the standard appeal form data obtained from external sources (including scanned documentation in generally recognized format) to allow comprehensive consideration of the appeal. Business Controlling Units (within the agreed scope) and Financial Division (without limitation) while considering appeals may use MBO analytical module that allows access to the settlement of KPI for indicated unit in a breakdown to individual transactions (depending on the gradation data provided by the central MIS for this KPI), which in many cases allows complete consideration of the ap-

peal without the need of full verification of MIS data warehouse. Consideration of the appeal results in an automatic response to the appellant and, if justified, corrected payroll passed to HR. The model of Appeal Consideration process is shown in Figure 9.

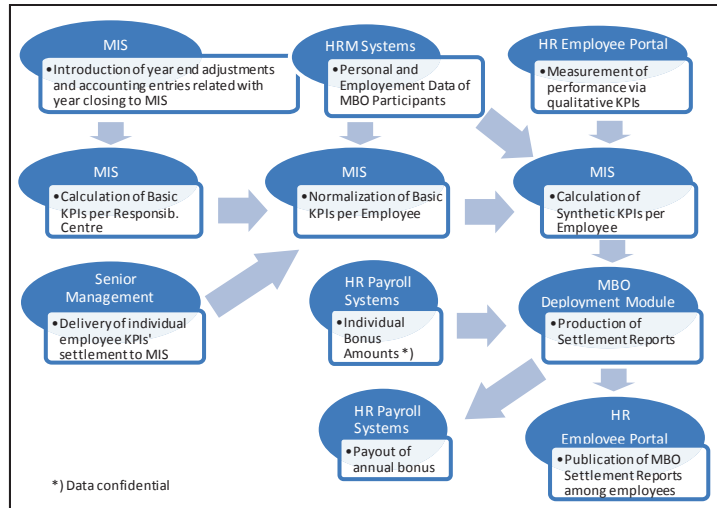


Figure 8. MBO Annual Settlement

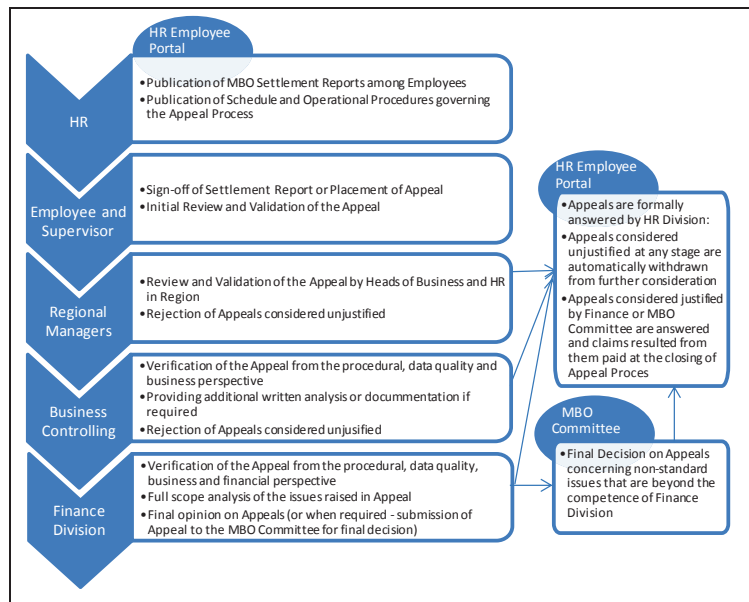


Figure 9. MBO Appeal Consideration

4. Conclusion

Functional requirements towards MBO supporting tool covered by this study were drafted for a commercial bank, however they seem to be general enough to be perceived applicable for any financial institution. Continuous developments in information technology promote both progressive integration of information systems and successive elimination of paper documents (or their substitute – large e-mail attachments) from organizations culture.

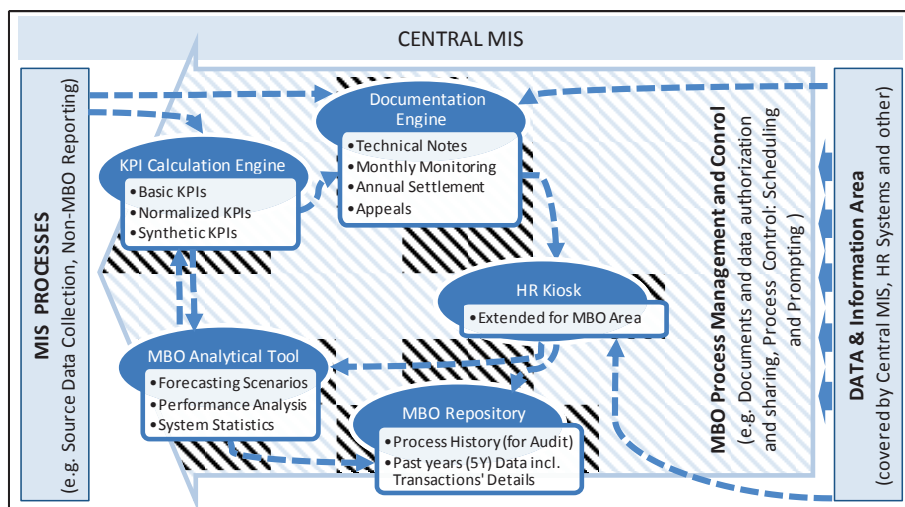


Figure 10. Key Components of Central MIS's Functionality Supporting MBO Processes

Implementation of advanced management systems based on complex theoretical solutions (including MBO) requires its well-organized support by respectively modified IT environment. In our experience, the biggest obstacle and difficulty here is next to the proper design of linkage between created for different purposes semi-integrated systems (multidimensional integration of information), frequent reluctance of managers towards full transparency (that is striving to maintain full control over supervised area by blocking effective flow of information to achieve own particular goals). Overcoming these difficulties and full implementation of IT support for MBO system dramatically increases efficiency of this tool in business management. Thus, dedicated IT support (among others MBO Module being integral part of the central MIS) should assure timeliness of decision-making process, increase transparency and reliability of supported processes, ensure data quality control and proper audit trial in MBO performance planning and measurement (values and points for each KPI). A concept of extending a central MIS by such a functionality is shown in Figure 10. Particularly important component of the pro-

posed solution is the computerized process of supervising and documenting the flow of all documents related to the annual reconciliation, authorization and settlement of technical notes. Another important element is the MBO repository, which should contain all the necessary business documentation and detail accounting data structured by historical data management models valid in a current and past years (for the period required by the legislation of the country concerned). However, all the documents and information, necessary for the individual MBO process participant should be obtained via the HR Kiosk. This means that in case of doubt as to the value of a chosen KPI delivered by MIS, user's claim may be redirected accordingly, e.g. to the BI platform, where one can check detailed data used to calculate KPI value presented in the document.

Commercial banks in Poland are reluctant to share information both in terms of the wider implementation of MIS and advanced management techniques as their successful implementation gives them a competitive advantage. Therefore, such information may be obtained almost exclusively during local conferences of young scientists (see [1]), or at conferences organized by the worldwide suppliers of IT solutions for its users. Anyway a key success factor in each case of implementation is on one hand assuring consistency between factual processes (business and support) running across the company and their reflection in IT infrastructure under implementation and on the other hand convincing people (especially line employees and middle managers) to the benefits of its implementation.

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