

**The measurement of labour productivity
and efficiency of the working process in multinational banks
Hamidov H.¹, Rzayev A.², Huseynli A.³, Shamkhalova S.⁴**

**Измерение производительности труда
и эффективность рабочего процесса в транснациональных банках
Гамидов Г. И.¹, Рзаев А. Я.², Гусейнли А. Т.³, Шамхалова С. О.⁴**

¹Гамидов Гамид Инсаф оглы / Hamidov Hamid - доктор философии по экономике, доцент кафедры,
кафедра управление бизнесом;

²Рзаев Анар Яшар оглы / Rzayev Anar - доктор философии по экономике, старший преподаватель кафедры,
кафедра международная экономика;

³Гусейнли Айтан Тайяр кызы / Huseynli Aytan - доктор философии по экономике, старший преподаватель
кафедры;

⁴Шамхалова Самира Октай кызы / Shamkhalova Samira - доктор философии по экономике, преподаватель
кафедры,
кафедра управление бизнесом,

Азербайджанский государственный экономический университет, г. Баку, Азербайджанская Республика

Abstract: *the article is about the methods of measuring an improving employee productivity and workflow efficiency at branches of Transnational Banks. The authors offer to use the method of standardizing the processes in the branches and then dividing them into activities. The value of each activity and the value of the total process is then getting calculating. Therefore the method of allocating the values rather than costs in measuring productivity and efficiency is offered in the article. The authors illustrate the use of the method in the credit department of a branch of a transnational bank. Examples of conventional methods of measuring employee productivity at banks are also illustrated.*

Аннотация: *в статье рассматриваются методы измерения продуктивности и эффективности работы сотрудников в филиалах транснациональных банков. Авторы предлагают использовать метод стандартизации процессов в филиалах, а также разделить их на деятельности. Затем рассчитать значение каждого вида деятельности и значение общего процесса. Поэтому в статье предлагается метод распределения значений, а не затраты при измерении производительности и эффективности. Авторы рассматривают применение метода в кредитном отделе филиала транснационального банка, а также примеры традиционных методов измерения производительности труда сотрудников в банках.*

Keywords: *transnational Banks, TNB, TNC, efficiency, optimization, credit department, process value, employee productivity, workflow, business processes, cost cutting, value creation.*

Ключевые слова: *транснациональные банки, ТНБ, ТНК, эффективность, оптимизация, кредитный отдел, ценность, производительность труда работников, документооборот, бизнес-процессы, сокращение издержек, создание добавленной стоимости.*

Transnational Bank (TNB) is a form of a Transnational Corporation (TNC) acting in the banking sphere. These are credit organizations that own and operate foreign branches. Therefore TNB along with TNC's are the subjects of world economy carrying on their activity and expansion through their foreign network.

Internationalization of business relations resulted in increase of credit operations of TNB. In the start of XXI century the scale of activities of TNC and TNB enlarged due to opening Eastern European and former Soviet Union markets, transformation of China into world manufacturer as well as liberalization of international trade and movement of a capital in a form of FDI. The number of TNB nowadays is over 150 and the number of their foreign branches exceed 5000.

The main difference of TNB from a large national bank is the existence of a network of foreign branches that act as a mechanism of accumulation and redistribution of a credit capital, movement to foreign countries not only a part of active operations but also a part of own capital and forming a foreign deposit base. Therefore the foreign branch network of TBN is actively participating in extracting additional profits for those banks.

Commercial penetration into foreign markets by TNB is done through several legal forms that allow TNB to gain an quick and reliable access to local market and resources [3, 17]:

- a representative office - the simplest form;
- a branch office;
- a daughter organization.

A fast moving process of foreign network enlargement forces Head companies to look for new ways of increasing efficiency and productivity of their branches.

As the payroll costs are the main component of total costs of a bank then the key task of an any bank is increasing productivity of its employees. Productivity in its turn is the key element in measuring the performance of a bank employee.

TNB gained some serious results in this sphere by usage of recent technological innovations. Operational environment of TNB changed after installation of reliable computer networks that allowed to expand the markets and decrease the labor use and costs. Computer networks as well as new software allow TNB to collect, generalize and analyze information in real-time basis and therefore improves the quality of decisions made by executives in Head companies. However this is off course a never-ending process.

A conventional approach to productivity measuring at banks relates to allocating costs to different activities or employee and therefore estimation the efficiency of usage of resources of a bank. Below are some examples of such approach [1, 347-360].

- Formula for calculation a productivity of employee:

$$P = R / EmN,$$

where, "P" is the productivity, "R" - revenue of the bank, "EmN" - number of employees in the payroll. Then the results of different years are compared against each other to have an analysis in dynamics.

- Formula of productivity that allows to compare the results of different banks or branches not depending on their size is called breakeven point coefficient formula.

$$Q_b = \text{Net profit} / \text{payroll costs}$$

- Threshold approach when banks define norms (thresholds) for different coefficients and then compare the actual results against them.

There several advantages of the threshold approach:

- it allows to carry out a systematic and steady monitoring of employee performance
- the results can be used in the bonus system of the bank
- it allows to estimate the future needs of the bank in terms of number of employees and their qualifications.

In this article the authors offer an approach of assigning value to activities and give an example of such an approach. In our opinion concentration on value creation and business process improvement needs to be carried along with cost related measurement procedures.

One of the main goal in business is cutting the costs and improvement of quality of information. To achieve this it is necessary to standardize activities, to streamline the working mechanism of the company and to regulate the activities aimed at diminishing the number of error. Therefore a set of methods for measuring efficiency of business processes can be regarded as a an effective tool.

ERP systems having incorporated mathematical tools for measuring main management processes can be used for developing applied mathematical tools of automated management systems for different levels of business. This due to a decrease of the role of intuitive decisions as well as an increase of scientific component of decision making processes improves efficiency of management and proves the relevance of the approach [2, 36].

Business processes is a totality of interrelated activities performed by an organization to achieve predefined results. For a company involved in manufacturing such activities would be manufacturing, planning, procurement, financing etc. Each process in business has an entrance and exit. The processes are planned in accordance with manageable conditions. In case if there is a difficulty with evaluating the quality of a final product and at the same time this proves to be inefficient then the processes are categorized as "Special processes". Services, final products, ready to use software, machinery, semi-finished goods can be considered as results of business processes.

"Dictionary Larousse" defines business process as sequential, result oriented lining of activities and actions.

According to S.Jablonski workflow complex of activities with interrelated inputs that follow each other in a sequence.

One of the main goal in business is cutting the costs and improvement of quality of services. To achieve this it is necessary to standardize activities, to streamline the working mechanism of the company and to regulate the activities aimed at diminishing the number of error. Therefore a general model of business processes (GMBP) can be regarded as a an effective tool for defining and analysis of required processes.

The main goal of using GMBP is supply the process development database with pre-defined terminology. The model allows the user to relate a certain activity with human resources depending on the character of the activity and to let the system to realize based on the pre-defined scheme as a result. For instance, within the framework of an activity the following actions are carried on: defining performance indicators, projecting, setting up a service system, collection, analysis, archiving of data, evaluation.

In fact, evaluation of economic efficiency of a business requires calculation of costs related to different activities of it. The value of each activity for the business can be defined by calculating costs attributed to it. Calculation of value related to an activity is a method attributing costs to different activities rather than to produced products or services. An activity is fact is a component of a task or work carried on with a certain aim. By doing this resources or additional costs can more precisely be allocated among products or services that make

a use of them. Calculation of value of activities does not abolish or change the costs but rather provides information on the use of those costs. Calculating of values of different activities within a process is carried on by following steps:

- defining activities within processes;
- calculation of a value of each activity;
- defining a value carrier of each activity;
- calculation of norms (thresholds) of indirect costs;
- division of costs by works.

In this article the authors illustrate the application of the method for the branch of a transnational bank.

Taking into consideration all above let us calculate values of processes of Credit Department of a bank. Total work hours and net work hours are grouped as a first step (Chart 1):

Chart1. Total work hours and net work time

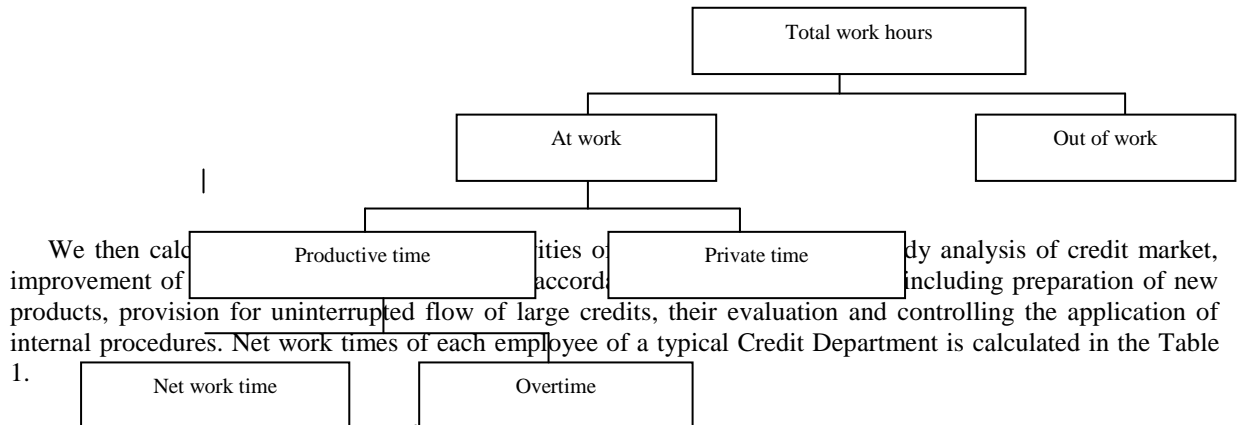


Table 1. Net work times of a typical Credit Department clerks

Bank employee (Credit Department)	
Total work days (52*5)	260
Day offs/Hollidays (4 weeks)	20
Balance of work days	240
Sicknesses /Training	10
Real work days/year	230
Hours/week	40
Hours/day	8
Hours/year	1,840
Minutes/yea	110,400
Other calendars (national differences)	10%
Balance of minutes	99,360
Use for private needs	10%
Yearly real minutes	89,424
Value of HR costs per employee	12000
Value of HR costs per minute	0.134
*Budget for material costs	25%
Material value per employee	3000
Material value per minute	0.034
Average total value / minute	0.168

Source: Calculated by authors based on HR departments documentations.

Having calculated net work time of each employee of a Credit Department it is possible now to total value of work process of a Credit Department. Credit Department clerk's minute value of is rounded to 0.17, a documentation manager's minute value to 0.15, credit manager's minute value to 0.25. Taking into consideration the listed values we can calculate the total process value of a Credit Department (Table 2). The overall value of Credit Department process is defined as being 17.26.

Table 2. Calculation of total process value of a Credit Department

Clerk	Documentation manager	Credit manager	Minute/manager	Time of process	Value of a process	17,26
The client wants to take a "consumer credit".						
Talking to the customer			0.17	20.0	3.40	
Helping the customer to fill up the credit application form			0.17	15.0	2.55	
Passing application form to the documentation section			0.17	1.5	0.26	
	Check the application form		0.15	3.0	0.45	
	Analyze financial and credibility state		0.15	15.00	2.25	
		Check the application and accept	0.25	10.0	2.50	
	Prepare credit contract		0.15	15.0	2.25	
	Open credit in IT system		0.15	7.00	1.05	
Customer signs the contract			0.17	5.00	0.85	
Passing the credit to the customer			0.17	10.0	1.70	

Source: Calculated by authors based on HR departments documentations.

Calculation of process values of main structural departments of a transnational bank is and virtually of any business is carried out to for their optimization and increasing of efficiency activities comprising those processes. This in its turn is a method of effectively providing high quality services at the lowest costs and short time period.

Optimization of processes is carried out by their deep analysis and negotiations with interested parties. Optimization is mainly carried out in the following form and sequence [6,42]:

- Analysis of a process
- Preparation of a report on analysis
- Setting up for negotiations and sending the report to interested parties.

Shortcomings of the process are then analyzed with the interested parties. As a result of discussion a report on optimization and its plan as well as road map get prepared and passed for the approval to the upper bodies of the bank. After the plan being approved an "Executive Team" gets appointed for its implementation.

The "Executive Team" is normally expected to report on the results of the optimization and its efficiency in conjunction with the Financial Department.

An optimization of processes is carried out with the aim to raise the efficiency of the most important activities of banks and other businesses. This creates grounds for effectively providing high quality services at

the lowest possible costs and in a short period of time.

To sum all above up the following can offered to increase productivity of employees at branches of TNB:

- unification and optimization of business processes of branches
- application of innovative information technologies that allow for speeding up business processes and decrease the use of labor
- centralization of operations and support functions
- increase of specialization of employees and division of labor among them
- eradication of low value activities
- best practice exchange between the branches of TNB and application of corporation wide system of working with innovations.

Resources

1. Bandara, W., Gable, G. G., & Rosemann, M. (2005). Factors and Measures of Business Process Modeling: Model Building Through a Multiple Case Study. *European Journal of Information Systems*, 14(4), 347-360.
2. T. Hale, D. Held. (2011) *The Handbook of Transnational Governance: Institutions and Innovations*. First edition. 296 p.
3. Becker, J., & Schütte, R. (2004). *Handelsinformationssysteme* (in German: Retail Information Systems) (2nd ed.). Landsberg/Lech, Germany: Moderne Industrie.
4. United Nations: Centre on Transnational Corporations. *Transnational Banks and the International Debt Crisis*. Published by United Nations Pubns. ISBN 10: 9211043492 ISBN 13: 9789211043495
5. BPMI.org, & OMG. (2006). *Business Process Modeling Notation Specification*. Final Adopted Specification. Retrieved February 20, 2006.
6. CCTA. (2000). *Service Support*. IT Infrastructure Library Series. London: The Stationery Office Books.