

*O. Maslyban,*

*Doctor of Economic Sciences, Professor of the Department of Management,  
Management of Economic Processes and Tourism, Mukachev State University*

*ORCID ID: <https://orcid.org/0000-0002-8465-548X>*

*T. Kulinich,*

*PhD in Economics, Associate Professor of the Department of Management  
of Organizations, Lviv Polytechnic National University*

*ORCID ID: <https://orcid.org/0000-0003-0110-7080>*

*M. Shevchenko,*

*PhD in Economics, Associate Professor, Associate Professor of the Department of Accounting  
and Finance, National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine*

*ORCID ID: <https://orcid.org/0000-0003-2165-9907>*

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# DEVELOPMENT OF A BALANCED SCORECARD OF INDICATORS OF FINANCIAL POTENTIAL OF THE PRODUCTION ENTERPRISE

*O. O. Maslygan,*

*д. е. н., професор кафедри менеджменту, управління економічними процесами та туризму,  
Мукачівський державний університет*

*T. V. Kulinich,*

*к. е. н., доцент кафедри менеджменту організацій, Національний університет "Львівська політехніка"*

*M. M. Shevchenko,*

*к. е. н., доцент, доцент кафедри обліку і фінансів, Національний технічний університет  
"Харківський політехнічний інститут"*

## РОЗРОБКА ЗБАЛАНСОВАНОЇ СИСТЕМИ ПОКАЗНИКІВ ФІНАНСОВОГО ПОТЕНЦІАЛУ ВИРОБНИЧОГО ПІДПРИЄМСТВА

***In previous research, the authors have proved that management of the financial potential of industrial enterprises realizes through the model of management paradigm. This model is based on the introduction of a balanced system of indicators, takes into account the multidimensional character of their modern activity, balances the target system, and establishes its direct connection with the results of the financial service of the enterprise in all frames (concerning personnel, technological and organizational resources of the financial service, financial resources of the enterprise, external environment). Such a model allows for achieving high efficiency in the activity of the financial service. Therefore, it is important to thoroughly test the developed elements of the methodology of financial potential management within which a choice of different financial development of production enterprises is necessary. It is also problematic that the introduction of a balanced system of financial potential indicators will not always be Implementation of a balanced scorecard financial potential will be effective provided that the financial service of the enterprise meets such criteria of choice: (1) management support (readiness to promote the balanced scorecard implementation, belief in the balanced scorecard benefits); (2) support from middle-level managers (understanding and readiness to promote the balanced scorecard implementation; readiness for the use of balanced***

scorecard); (3) agreement of employees to balanced scorecard use; (4) support by the financial service of a unified evaluation culture (desire to clearly understand the values of indicators related to strategic goals; ability and desire of employees to collect data for assessment of current performance indicators). Therefore, the purpose of the article is to illustrate the development of a balanced system of indicators of the financial potential of the production enterprise. According to the results of the study, the development of a balanced system of indicators and its realization within the financial services of the objects of approbation have quantitatively fixed strategic initiatives in the target settings, which take into account priority directions of development and limitation of resources and have determined well-grounded qualitative standards of control.

У попередніх дослідженнях авторами доведено, що управління фінансовим потенціалом виробничих підприємств, реалізоване через модель управлінської парадигми що базується на запровадженні збалансованої системи показників, ураховує багатоцільовий характер їх сучасної діяльності, збалансовує цільову систему та налагоджує її безпосередній зв'язок з результатами діяльності фінансової служби підприємства у всіх ракурсах (стосовно кадрових, технологічних та організаційних ресурсів фінансової служби, фінансових ресурсів підприємства, зовнішнього оточення). Очевидно, що така модель дозволяє досягти високої результативності в діяльності фінансової служби. Відтак, важливою є всебічна апробації розроблених елементів методики управління фінансовим потенціалом у межах якої необхідний вибір різномірних за можливостями фінансового розвитку виробничих підприємств. Проблемним є також, те, що впровадження збалансованої системи показників фінансового потенціалу не завжди буде дієвим, відтак важливо визначити критерії, що забезпечують оптимальність. Впровадження розробленої збалансованої системи показників фінансового потенціалу буде дієвим за умови відповідності фінансової служби підприємства таким критеріям вибору: підтримка з боку керівника (готовність сприяти впровадженню збалансованої системи показників, віра в її переваги); підтримка з боку керівників середньої ланки (розуміння та готовність сприяти впровадженню збалансованої системи показників; готовність до використання збалансованої системи показників); згода працівників користуватися збалансованою системою показників; підтримка фінансовою службою єдиної культури оцінки (бажання чітко розуміти значення показників, що пов'язані із стратегічними цілями; вміння та бажання працівників збирати дані для оцінки поточних показників діяльності). Відтак метою статті є ілюстративна розробка збалансованої системи показників фінансового потенціалу виробничого підприємства. За результатами дослідження зроблено висновок, що розробка збалансованої системи показників та її реалізація в межах фінансових послуг об'єктів апробації кількісно зафіксувало стратегічні ініціативи в цільових установах, які враховують пріоритетні напрямки розвитку та обмеження ресурсів і визначило обгрунтовані якісні стандарти контролю.

*Key words: balanced scorecard; strategic map; cascading; financial potential management.*

*Ключові слова: збалансована система показників; стратегічна карта; каскадування; управління фінансовим потенціалом.*

## PROBLEM-SETTING AND ITS RELATION TO IMPORTANT SCIENTIFIC OR PRACTICAL OBJECTIVES

In previous research, the authors have proved that the management of the financial potential of production enterprises, realized through the model of management paradigm based on the introduction of the balanced scorecard (or — BS), accounts for the multidimensional character of their modern activity, balances the target system and establishes its direct connection with the results of activity of financial service of the enterprise in

all fields (concerning personnel, technological and organizational resources of the financial service, financial resources of the enterprise, external environment). It is obvious that such a model allows for achieving high efficiency in the activity of the financial service. Therefore, it is important to thoroughly test the developed elements of the methodology of financial potential management in which a choice of different financial development of production enterprises is necessary. It is also problematic that the introduction of a balanced scorecard financial potential will not always

**Table 1. Economic efficiency of use of production waste of PJSC "Putyl's'kyi lisokombinat", 2021**

production waste	ways of waste utilization	Potential buyers	lost income, thousand UAH	The cost of 1 tons of competitors' wastes as of 2021, thousand UAH	The volume of waste for 2021 according to the calculation, (in tons)
technical greenery	Pear and ra succulent feed	population	10	0,23.	23
small-diameter wood, sprout, pieces wood	Logs		15,8	1,2	19
chipboard	wood-fiber boards, particleboard, logs	woodworking enterprises, population	21	2	32
In total			46,8	-	-

Source: data of the websites PJSC "Putyl's'kyi lisokombinat".

be effective, so it is important to define criteria that ensure optimal performance.

**ANALYSIS OF RECENT STUDIES AND PUBLICATIONS**

Analysis of the latest research and publications, in which the solution of the problem of development of a balanced scorecard has been initiated, allowed to allocate as the main achievements Kuzenko T. B. Sablina N. V. [2], Ivanets' O. O [1]., Shandrivs'ka O. Ye., Kuzyak V. V., Bek O. M. [5]. At the same time, the mentioned works are rather fragmented, as they are devoted to the development of scientific approaches to the management of the financial potential of the enterprise, in particular, generalization of the source of financial potential formation, consideration of the main tasks of effective financial potential management. Therefore, within the framework of the research we have based on our own research on the defined issue (in particular, in the sphere of streamlining the process of development and integration of balanced scorecard as the basis of the financial management system, on the formation of a unified approach to the effective management paradigm of the financial potential of the production enterprise [3; 4]). The outlined directions were useful for the allocation of effective conditions for balanced scorecard implementation.

Formulation of the objectives. The purpose of the article is to illustrative development of a balanced scorecard of the financial potential of the production enterprise

**PRESENTATION OF THE MATERIAL OF THE STUDY, SUPPORTING THE SCIENTIFIC RESULTS OBTAINED**

Implementation of balanced scorecard (or — BS) financial potential will be effective provided that the financial service of the enterprise meets such criteria of choice [3-4]: (1) management support (readiness to promote the BS implementation, belief in the BS benefits); (2) support from middle-level managers (understanding and readiness to promote the BS implementation; readiness for the use of BS); (3) agreement of employees to use BS; (4) support by the financial service of a unified evaluation culture (desire to clearly understand the values of indicators related to strategic goals; ability and desire of

employees to collect data for assessment of current performance indicators). The higher the percentage of the organizational unit compliance with the above selection criteria (1—4), the more optimal it is for BS implementation.

Let us consider the peculiarities of the development of balanced scorecard financial potential of the production enterprise taking into account the mentioned criteria in the example of the production enterprise of PJSC "Putyl's'kyi lisokombinat". At that, taking into account the above criteria of efficiency, the following input data are defined: The main purpose of the enterprise "assistance to furniture manufacturers"; the specificity of the future — "the best national producer of wood"; valuable orientation — personal development; the loyalty of the leader; no irreplaceable workers; satisfied clients are not present; overdue debts are not a problem; shareholders are only dividends.

The basis of company's balance is based on:

— the general strategy of "expansion and reorientation of the felling territory" in the section: closing of low-productivity cutting areas (with high % of production waste) and reorientation on high-productivity cutting areas with the prospect of an increase of the felling; participation in tender processes on timber harvesting; acquisition of modern trailing equipment that does not violate the forest cover;

— anti-crisis financial development (protection of the won positions), which makes it necessary to reduce expenses.

PJSC "Putyl's'kyi lisokombinat" chose such ways of cash accumulating:

1. The use of production waste will allow receiving additional income — 46,8 thousand UAH. The substantiation of economic expediency of the use of wastes of production is given in Table 1. Analysis of expectations of clients, suppliers, creditors, and employees revealed the inability of the existing system of values to promote the development of the enterprise and allowed to allocate the necessary for the development of goals: satisfied customers; satisfied shareholders; excellent business reputation; fair compensation of employees.

2. Sale of fixed assets with a high degree of bearing (590 thousand UAH), objects of incomplete construction (84,5 thousand UAH), animals on feeding (4,5 thousand

**Table 2. The productivity cutting areas of PJSC "Putyl's'kyi lisokombinat", 2021**

Number of cutting areas	the volume of production in m3		waste (according to calculation), in %		
	fact	plan	fuel wood	small-diameter wood	low-quality wood
1	643,41	0	20	5	35
2 (there a perspective of increase in logging)	1699	2590	20	6	2
3	500,34	500,34	10	5	13
In total	2842,75	3090,34	50	16	50

Source: data of the websites PJSC "Putyl's'kyi lisokombinat".

UAH), sale of unrealized stocks of finished products (100 thousand UAH), which will allow getting 779 thousand UAH.

3. Conservation of low-productivity cutting area (with a high % of production waste) and reorientation on high-productivity, with the perspective of increase of felling territory. Production and output of friendly raw materials are given in Table 2.

Thus, the conservation is liable to the cutting area number 1 (the output of raw materials 40%), for cutting area number 2 is the prospect of an increase in felling territory by 52% (or receiving an additional income of 302 thousand UAH).

4. Reduction of the number of products sold on credit using an implementation of 100% of pre-payment, which will help to free up additional funds for the sum of 101,2 thousand UAH.

5. Introduction of the practice of open auctions on the sale of wood, which will allow the sale of raw materials received as a result of the increase of cutting by 52%. The forecast amount of released funds will equal 1182,2 thousand UAH. and will be used for:

- payment of the most urgent obligations of the enterprise (accounts payable for goods, works, and services (531,6 thousand UAH), current obligations on labor payment (50,1 thousand UAH), current obligations to the budget (120,9 thousand UAH));

- the acquisition of an economic rope-skidder will help to save the costs of cracking and increase competitiveness in tender processes. According to the calculation data, in the case of the installation of the skidder, the cost is projected to decrease by about 27%.

To purchase the plant, the company needs to find a manufacturer who offers the equipment in acceptable conditions. It is advisable to hold a tender to determine the best offer from the manufacturer. Coordination of these issues requires: the expenses of funds for the tender 1 thousand UAH; purchase of equipment — 160 thousand UAH; transportation of equipment — 2 thousand UAH; adjustment and installation of equipment — 3 thousand UAH. All stages of work together are estimated at 166 thousand UAH. The load capacity of the unit — is 4,5 (replaces 4 tractor mechanisms), and fuel costs — are 12 liters. gasoline (6,4 per 1 liter) for 100 km. (fuel consumption for tractors — 19 liters. diesel fuel (price 6,90 per 1 liter) for 100 km.).

The average tractor skidder distance of 1 is approximately 500 km. at 1 sq.m., 560 km. at 2 sq.m., 400 km. in

3, 300 in 4, the average monthly income of the tractor operator is 650 UAH. During the logging, the device will need to be rearranged on average 4 times in 1—2 quarters, and 6 times in 3—4. Installation and installation of the device require 5 hours of work for 3 people (salary 690 UAH).

The following parameters allow for estimating the economic feasibility of the investment in the purchase of a cable-skidder installation. Thus:

- initial investments are renewed in 5 years, 215381 thousand UAH are redundant at the beginning of the fifth year. Initial investments will be covered for the first nine months of 5th year. Thus, the period of money return invested in the project is going to be equal to 4 years and 3 months, and the cost-effectiveness of the project will be 136%;

- attraction of 50% of the loan funds for 7 years at 21% is inappropriate, as initial investments are renewed during 9 (+ 33510,95 thousand UAH are redundant at the beginning of 9th year, initial investments will be covered for the first of 1 one month of 9th year). Thus, the term of return of funds invested in the project will be equal to 8 years and 1 month. The project profitability will decrease to 43%.

The implementation of the specified provisions will form such a balance sheet structure and a financial performance report. The current balance sheet results and preliminary assessment of financial potential have allowed PJSC "Putyl's'kyi lisokombinat":

- 1) to orient the financial service employees to maximize profit;

- 2) to choose as strategic measures:

- component 1: (1.1) sale of fully depreciated fixed assets, objects of unfinished construction, non-liquid reserves, animals on breastfeeding; (1.2) reduction of the term of commodity credit; (1.3) minimization of accounts receivable; (1.4) payment of the most term obligations; (1.4) rope-skidding plant purchase; (1.5) closing cutting areas number 1, increase of felling territory in cutting areas number 2; (1.6) introduction of the practice of open auctions for the sale of wood; (1.7) economically appropriate use of waste;

- component 2: (2.1) expansion of the customer base; (2.2) participation in public procurement on felling with potential cutting areas of high-quality wood; (2.3) annual dividends are paid, ensure the information needs of shareholders; (2.4) improvement of the business image;

**Table 3. The strategic card PJSC "Putyl's'kyi lisokombinat", 2021**

BS components	goals on BS constituents	goals on BS constituents	goals on BS constituents
1 financial resources of the enterprise	1.1. Optimization of the enterprise property and the cutting area's structure	← improve profitability → enterprise	1.3. Cost savings 1.2. Increase of income from sales of products
2 external financial environment	2.1. Customer satisfaction	← Reduction influence of the external → financial environment ↓ 2.2. Competitiveness in tenders	2.3. Shareholder's satisfaction
3 personnel resources of the financial service	3.1. Motivated staff	← Efficient work of staff →	3.3. Conformity of employees with positions
4 technological resources of the financial service	4.1. Quality of information streams	← Efficient technology → of management	4.2. Conformity of the technology of specification management
5 organizational resources of the financial service	5.1. High organizational culture	← 5.2. High level → of communication culture	5.3. Effective feedback

Source: data of the websites PJSC "Putyl's'kyi lisokombinat".

— component 3: (3.1) professional development of employees; (3.2) increase employee interest in labor results; (3.3) brought in line value of shareholders and employees of an enterprise; (3.5) conducting HR audit (determination of conformity for a job);

— component 4: formation of interest of workers in innovation (technological, organizational); increase of completeness, clarity, relevance, and reliability of information flows; improvement of the financial planning system; introduction of the control system;

— component 5: (5.1) formation of staff awareness regarding the mission, vision, and enterprise values; (5.2)

formation of trust in leadership; (5.3) development of a code of business ethics; (5.4) implementation of the practice of joint management problems; (5.5) introduction of the practice of mentoring; (5.6) formation of the company's interests in the employees; (5.7) attention of the enterprise to questions and suggestions of subordinates (introduction of the mail of the head; an increase of reception hours); (5.8) promotion of self-expression of the employee, encouragement to express proposals on the enterprise development..

Implementation the agreed recommendations was reached using strategic card below (Table. 3).

**Table 4. BS PJSC "Putyl's'kyi lisokombinat", 2021**

BS components	Strategic goals	Quantitative expression of goals		
		The name of the indicator	Initial value	Target value
	1	Profitability of own capital (a0)	-0,149	0,28
1	1.1.-1.3	Absolute liquidity ratio (a1)	0,003	0,2
		Income from sales of products, thousand UAH. (a2)	2916	3264,8
2	2.1	Customer satisfaction (b1)	3 P <sup>1</sup>	11 P
	2.2	Competitiveness in tenders (b2)	0 P	4 P
	2.3	Shareholder's satisfaction (b3)	1 P	5 P
3	3.1.	Motivated employees (b1)	1 P	5 P
	3.2.	Conformity of employees with positions (b2)	0 P	3 P
4	4.1.	Quality of information streams (g1)	0 P	3 P
	4.2.	Conformity of the technology of specification management (g2)	1 P	5 P
5	5.1.	Organizational climate (p1)	1 P	5 P
	5.2.	Communication Culture (p2)	2 P	5 P
	5.3.	Feedback (P3)	2 P	5 P

Source: data of the websites PJSC "Putyl's'kyi lisokombinat".

The final fixing of the scenario of strategic choice and formation of target settings, taking into account the priority financial directions and limitations on resources, set out in Table 4.

Thus, the formation of a balanced scorecard financial potential allowed the PJSC "Putylykey skey ty lisokombinat":

1) allocate 5 spheres of controlling ("a", "b", "b", "d", "d");

2) allocate 13 General indicators with fixing each of them in a particular area of controlling:

— sphere "a": profitability of own capital; absolute liquidity ratio; income from sales of products;

— sphere "b": satisfaction of the client's needs; interest of suppliers; satisfaction of shareholders;

— sphere "b": motivation of employees; correspondence of employees to posts;

sphere "d": quality of information flows; conformity of technology of management to specifications;

— sphere "d": organizational climate; communication culture; feedback.

3) to orient the employees of the financial department on achievement of the main financial goal — an increase of profitability of own capital by means of fixing at each General indicator of target setting (qualitative standard of control).

Thus, the development of strategic cards of the financial potential of the PJSC "Putyl's'kyi lisokombinat" allowed us to carry out a description of the chosen scenarios of strategic development, to detail them in the system of tasks. As a result, the main areas of optimization of the financial potential management system and formed balanced target systems are defined, which take into account possible prospects of financial development of enterprises and existing limitations on resources.

## CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The development of a balanced scorecard and its implementation within the financial services of the objects of approbation has quantitatively fixed the selected strategic initiatives in the target settings, which take into account priority directions of development and limitation of resources and have determined well-grounded qualitative standards of control. At the same time following conclusions were made:

1. Creation and cascade of balanced scorecard optimized the system of financial planning and control of PJSC "Putyl's'kyi lisokombinat", which is achieved due to: ensuring factor communication and hierarchical correlation of all control indicators, creation of opportunities for quick identification of reasons of deviations of actual values of control indicators from the provided qualitative standards of control; clear fixing of goals in the system of financial and non-financial indicators; formation of a clear system of responsibility for the final results of the activity.

2. Implementation of the proposed model of management paradigm at the PJSC "Putyl's'kyi lisokombinat" has formed a new form of realization of management activity through the use of tools balanced scorecard (system of gathering and analysis of

information about results; system of determination, decomposition, and balancing of goals, the infrastructure of responsibility, a system of control indicators)..

## PROSPECTS FOR FURTHER RESEARCH

The obtained results will create opportunities for further testing of the elements of the method of managing the financial potential of the production enterprise through a balanced scorecard and realization of the process of its cascading.

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