Phd student Nadiya Yevhenivna Stetsyuk  
Kyiv National Economic University named by Vadim Hetman  
Department of Accounting

Ways of development accounting and control productive resources use on forestry enterprises

Sposoby księgowania i kontroli zasobów produkcyjnych wykorzystywanych w przedsiębiorstwach leśnych

Abstract: This paper is focused on the problems of accounting approach to consumption area of forestry enterprises productive resources to increase of control rational use. In particular, the author pays attention to the problems of evaluation volume and qualitative indicators productive resources use. We present economic characteristic material, labor and financial resources. Also, this given paper offers recommendations on the development of productive resource use on forestry enterprises.

Keywords: productive resources, fixed assets, labor forces, financial resources, wood resources and materials.

Streszczenie: Artykuł skupia się na problemach z zakresu rozliczania zużycia zasobów produkcyjnych w przedsiębiorstwach leśnych celem zwiększenia kontroli ich racjonalnego wykorzystania. W szczególności autorka zwraca uwagę na problemy oceny wskaźników ilościowych i jakościowych zużycia zasobów produkcyjnych.

Słowa kluczowe: zasoby produkcyjne, środki trwałe, siła robocza, zasoby finansowe, zasoby drewna i materiałów.

Introduction

In modern conditions, production development should be accompanied by permanent rationalization of economic mechanism, which will lead to effective development productive forces and inter-temporal changes suitable productive relations. The formation of market economy provides for competitive struggle between different producers, which can win those who most effectively uses all types of available resources. Scientific and technological advance should be directed to the rational use of natural resources, raw materials, fuel and energy at all phases – from cutting wood and its complex processing to produce the final product. Providing productive resources for forestry enterprises, their rational uses and high labor productivity is the most important condition for successful production activity. Only in this way its possible to provide production efficiency growth, improvement in quality and competitive advantage of production.

Some issues of the problem were considered in works by scientists such as Totoev T., Spasov D., Horbunov Ye., Akulov M., Drabanych A, Yevas T., Yerofeyeva V., Donda A. and others. Scientists always have interested in efficiency generalizations of accounting information on spending productive resources.
Thus, primary importance gets next issues: accounting approach to consumption area of forestry enterprises productive resources to increase of control rational use; clear segregation of duties between different managers of departments for productive resources rational use and influence of expenses for financial results; high efficiency and analyticity of accounting, that’s help to make well-time and grounded managerial decision; use of modern computer technology in accounting and analysis to provide information to managers at all levels about the process and economic activity results.

**Directions of productive resources rational use**

In market relation condition in production is took place some shift of emphasis in accounting and analysis. Primary importance doesn’t get reflections and researching capacity indicators, but accounting and analysis of qualitative indicators. For example, considerate capital assets we have to pay attention to such important qualitative characteristic as active part of capital assets ratio, its age composition, depreciation, retirement and renewal rates, utilization rate of fixed assets, return on assets ratio, use equipment in timeline, production quantity per 1 square meter workspace, matching number of workplaces and number of workers.

Also need to separate on capacity and qualitative indicators of usage such kind of resources as; raw material and supplies, fuels and energy, labor forces, financial resources (table 1).

A lot of qualitative indicators have such good characteristic as capability to generalize across the industry and the whole economy and thus characterize the situation at the macroeconomic level. However, some parameters can only be obtained at the level of the entire economy and they should only be compared with such values (material and energy consumption).

To improve the productive resources use is necessary to create appropriate system of planning indicators, which can analyze not only production activities, but also changes in economic activities of enterprise (table 2).
### Table 1. Characteristics of capacity and qualitative indicators of productive resources use on forestry enterprises

<table>
<thead>
<tr>
<th>Types of resource</th>
<th>Fixed assets</th>
<th>Raw material and supplies, fuels and energy</th>
<th>Labor forces</th>
<th>Financial resources</th>
</tr>
</thead>
</table>
| **Capacity (quantitative or value indicators)** | - Book value  
- Net book value  
- Book value per groups  
- Movement of fixed assets (renewal, depreciation)  
- Working space cost | - Raw materials in physical terms  
- Raw materials in terms of value  
- Raw materials expenses  
- Fuels expenses  
- Energy expenses  
- Reusable scraps in physical terms  
- Reusable scraps in terms of value | - Size of operating personnel  
- Headcount by categories  
- Gender and age distribution of employees  
- Total wages fund  
- Wages fund by categories  
- Man-days worked  
- Man-hours worked | - Operating income  
- Non-operating income  
- Amortization  
- Other income  
- Revenue from non-liquid sales  
- Budgetary financing  
- Special purpose funding  
- Internal system allocation of current assets |
| **Qualitative** | - Active part of capital assets ratio  
- Age composition  
- Depreciation rate  
- Renewal rate  
- Retirement rate  
- Utilization rate of fixed assets  
- Return on assets ratio  
- Equipment use in timeline  
- Production quantity per 1 square meter workspace  
- Matching number of workplaces and number of employees. | - Overage inventory in physical terms  
- Overage inventory in terms of value  
- Material consumption  
- Energy consumption  
- Raw materials and supplies turnover  
- Complex rework of raw materials and supplies  
- Utilization of production scraps | - Educational structure of employees (total)  
- Educational structure of employees by categories  
- Qualification structure of employees  
- Work experience  
- Labor fluctuations  
- Labor efficiency per one worker  
- Relation between categories of work and employees qualification level  
- Relation between headcount and number of working places  
- Work time losses | - Immobilize of circulating assets  
- Profit and losses pattern  
- Active part of funding source of private capital investments  
- Funding sources structure of private capital investment |
<table>
<thead>
<tr>
<th>Resources types and ways to improve its use</th>
<th>Fixed assets</th>
<th>Raw material and supplies, fuels and energy</th>
<th>Labor forces</th>
<th>Financial resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Careful attitude to resources</td>
<td>Increasing of utilization equipment, productivity from return on assets ratio, better use equipment in timeline (increasing of turnover rate, decreasing internal changes downtime, extension of interrepair time, reduction of repair time)</td>
<td>Reduction inventories according to norms, rational use of materials, fuel and energy in production, reduction of scrups, defects, spoilage, decreasing of production net weight, decreasing material and energy consumption, utilization of scraps, complex rework of wood material</td>
<td>Rational use according to occupation, level of education and qualification, the relation between headcount and number of workplaces, services enhancement, development of related qualification, use of detail work schedule, decreasing labor turnover, release overage labour</td>
<td>Losses prevention suit of breach of negotiated payment financial discipline, rational use of financial resources according to financial plan</td>
</tr>
<tr>
<td>Renew, improvement and changes of resources</td>
<td>Renew, replacement by more productive, which according with highest world level, improvement of its quality (increase active part)</td>
<td>Usage of technologies which save materials and alternative technology, replaces expenses materials with cheaper, the use of synthetic components</td>
<td>Technicological education, qualification development, replace hand work with machine</td>
<td>Transition from budgetary funding of capital investment to self funding</td>
</tr>
</tbody>
</table>
The effect from rational use of productive resources will show up in reduction product costs and profitability growth. Such indicator as: reduction production costs compare the plan, previous period in absolute and relative expression (reduction expenses on 1 hryvna of productions), reduction expenses for individual economic elements and calculation items, reduction costs on individual item, standard of production cost. Its necessary periodically provide a comparative analysis of such indicators as: costs of product made by domestic enterprises, industry average production cost, product costs made by foreign companies.

Product cost reduction is a main source of increase profit, improvement its quality structure leads to increased profitability of products and production in general. According to the profit and profitability are planned, recorded and analyzed relevant indicators: the accounting profit growth, revenue growth from sales of products, works and services, a increase the rated profitability and profit margin, increase profitability of all production. The research of profit dynamics, revenue from product sales and profitability dynamics of the most important products for a certain period of years are interesting for analysis economic activity. Thus, to enhance the accounting and control of production resources use is required to key economic indicators are not simply recorded the existing business situation, and contributed to the optimal results achievement of industrial and economic activity.

However, not all the necessary data can be obtained by means of accounting. First of all, it's necessary to set out structure, content and periodicity data presentation about use of every type production resources, analyzing practice of advanced country. Secondly, it is necessary to develop an accounting form for every level of management, to find the form of feed-back information user with its source or department of enterprise which it belong to. Thirdly, we should define a source and method receiving necessary information (types of economic accounting, recording facilities, collection and transfer of information, drawing up of accounts periodicity etc.). Fourthly, it is necessary to fix the responsibility for the collection, processing and presentation of the information required by the relevant accounting department and other departments and services of enterprises.

Summarizing all above, we propose to consider the features of accounting and control for all type controlled resources.

Economical characteristics of main productive resources parts

Unfortunately, in our country accounting of equipment is not adjusted properly in many industries. Exceptions are production branches, where a technological process is continuous, and the operative account of equipment operation, which is carried out engineers directly. And however, it is needed to mark that without the personal moral and financial interest of line managers the solution of this problem is impossible. Therefore, we suggest leading the efficiency certificate on every woodworking machine-tool. It will help to maximize use the planned fund of work time equipment. In the efficiency certificate an engineer and maintenance man, will reflect all downtimes of equipment during
every shift with indicating their reasons. At the same time, equipment must assign to certain maintenance men, who are responsible for terms and quality of repair works. Organized thus accounting and control allow to analyze the work of employees to identify "weaknesses" and fix its in time.

The efficiency certificate has to meet some requirements for woodworking enterprise. In this documents have to set out tasks and norms of production, their use, operating mode and overage machine shift. Every employee has certificate insets to record equipment downtime and its reasons. Every day is recording how much time and for which reason machine was down. Coming from these insets engineer accounts of task performance and machine utilization rate. Then this information goes to production foreman for certain decision making. Further production department make a statement for a month, which goes to economic planning department of woodworking enterprise.

Accounting of the use of equipment to be maintained on the basis of logbooks, which daily recorded reasons downtimes for each machine of the main production department. Analyzing the work for the day, showing up limitations in the equipment use and use methods of their fixing. Much better keep records in conditions of ICS.

Along with control over the use of fixed assets in the focus of accounting work is the analysis of the rational use of raw materials, supplies and energy resources. Increasing material expenses rate in production costs in the forestry industry, on the one hand and the growth of social labor productivity and the relative reduction in the proportion of living labor costs on the other hand, the rising cost of many types of raw materials and supplies. This situation explains decreasing conditions their storage and delivery to consumer. The rise of prices on the major types of wood raw materials and supplies caused by the depletion of previously existing storage places and the need to develop new.

Main directions in saving material expenses: improving quality, improving production technology, lower production costs and scraps, introduction of non-waste technology, comprehensive utilization of raw materials and supplies, multiply reuse of materials, introducing new economic products to prevent losses during transport and storage of materials, use of overtime and overage inventories in production.

Production accounting plays an important role in reducing material expenses due to tight control of the presence and movement of fixed assets at all stages of production and supply. Its require strict control over the preservation of fixed assets at the storages.

Great importance has simultaneous quality control norms of materials consumption and functional cost analysis. Thanks to what can be research factors that influencing on spending materials, implemented measures to further reduce expenses. In practice, there are no grounds separately to study consumption of materials and functional value analysis.

In recent years is growing the importance of scraps utilization as secondary resources of raw materials and supplies. However, experience shows that forestry enterprises are not adjusted accounting of different types of scraps

Seria: Administracja i Zarządzanie (27) 2014

ZN nr 100
in the proper analytical section, not shown, as they can be used in industrial processes.

Currently, along with material and financial resources industries are becoming increasingly important workforce. It is up to them strongly dependent growth prospects and scientific and technological advance. That is why some authors suggested that human (labor) forces as an important element of the productive forces should be considered among the indicators of economic potential.

In particular, to measure the resource use efficiency and expenses some authors recommend comparing national revenue with total resources used in the sphere of material production. It is necessary to calculate the national income rate to total of fixed assets and current assets and work forces, that determine as labor compensation fund.

However, a significant problem in this remains estimation of labor potential, especially valuable that can bring together all the amounts that characterize the economic potential of the country.

Meanwhile, the problem of labor forces availability can’t be resolve without taking into consideration the availability and use. Existing statistical account only covered such indicators as number of workers and movement of labor force by categories in quantification and money wages. Quality side of labor force doesn’t consider. In this moment account of labor force use are being reduced to reflect the worked time and the expenses of working time in man-days and man-hours. These expenses are not taken into account in value terms, although the monetary evaluation of expenses is of great interest for economic analysis and decision-making to resolve this problem.

Such scientists as Akulov M., Drabanych A., Evas T., give such interesting proposal about account of working time use. They recommended man-days and man-hours express in monetary terms (based on the average wage per man-hour or man-day) and calculated amount showing on the relevant off-balance accounts that make easier the reflection in accounting ¹.

However, there is another category of expenses related with labor turnover. For example, highly decrease of labor efficiency of workers which are going to retire of employment at least for few weeks before that. Unfortunately, domestic forestry enterprises don’t make calculation of monetary evaluation connected to labor turnover. Value of labor forces need to calculate on off-balance accounts and showing them up in certificate of enterprise.

It’s necessary to use indicator of labor force evaluation in determination of profitability and analyzing dynamics of this indicator, including in analytical comparison between enterprises. Thus, amount of total or calculated profit will be stand in numerator of profitability level formula and in dominator will add labor force evaluation in monetary terms to amount of fixed and current funds.

It is also currently considering some aspects related to the accounting of financial resources use, which consumption serves as production expenses.

One of those financial resources types that are part of productive resources are amortization expenses.

Amortization policy of enterprise is part of forming policy of own financial resources, consist in management by them with the purpose of reinvestment in a production.

Main role at the enterprise and in national economy plays optimal formed amortization policy in production and reproductive process. Improvement of amortization policy is one of the main directions of government activity in economic reform sphere that helps to reserve technical retooling and further production development and successfully realize scientific research activity of forestry enterprise. Inconformity between amortization policy and real processes, that take place at enterprise lead to changes in capital assets turnover and slow down in utilization new and removing worn-out and obsolete equipment and other negative implications.

During reconstruction of management enterprise independently use amortization charges to replenish production development fund or other funds with same purpose. Besides amortization charges, production development fund on forestry enterprise is formed by profit and revenue from realization overage and liquidation retired assets. This fund is used primarily for technical retooling and updating enterprises to accelerate the introduction of technological innovations and the development of production, which meets the highest standards of quality, reliability and products life.

This fund is take special place and lead to scientific and technical advance on enterprise. However, it is characteristic for many post-socialist countries existe the enterprise so-called “reserve funds”, or economic risk funds which formed by deduction from profit. The funds are dedicated to cover loss or unscheduled expenses for equalization of economic results. In this paper we don’t stop on funds which are formed for material reward employees or funds that dedicated to finance social and cultural activities, because use of this financial resources don’t relate to consumption of production resources.

Conclusions

The methods of account and control of productive resources use, which realization is closely related to division of responsibilities for the value, relevance and justification of expenses between managers of production departments and individual performers are examined in the paper. Despite the fact that accounting has a leading position among other economic accounting, relevance and efficiency of productive resources only by its tools are hardly controlled. System of economic accountancy and economic analysis on forestry enterprise have to be organized in such way as much more attention was paid to control and regulation of production activity of enterprise and all its departments and services, monitoring the usage of assets, labor and financial resources.

Account and analysis have to provide in all levels of management, in work teams and working places. Disadvantages of aacounting and analysis in production departments is make its hard to provide economic account by prod-
uct team. Different types of economic accounting is not compatible with each other and together don’t compensate errors in information system for management of different levels for making decisions. Need to pay special attention for overspent, impairment of assets. In this case we need to analyze experience of domestic and foreign forestry enterprises.

**Bibliography**


