



VARIANTS OF DETERMINING THE MANUFACTURING COST OF A PRODUCT IN A PRODUCTION UNIT IN THE LIGHT OF BALANCE SHEET LAW

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Abstract:

The category of the manufacturing cost of a product is one of the most important ones from the point of view of proper valuation of the assets of a production unit, costs of its operations as well as pricing decisions. This article presents the problem of determining the manufacturing cost of a product in terms of balance sheet law. It has been shown that in order to determine this value various methods and options are allowed by this law, by means of which different values of manufacturing cost of a product are obtained. The importance of a proper selection of an allocation key in settlement of indirect production costs has been highlighted as well as the results of using, in certain cases, approved simplifications in the balance sheet law when determining the manufacturing cost of products have been demonstrated. The problem presented in this article is crucial from the point of view of an organization and management of production as well as managerial decision-making in a company in the area of design of products and processes.

Key words: *manufacturing cost of a product, finished product, management of production processes*

INTRODUCTION

Information about the manufacturing cost of a product is one of the most important from the point of view of control, organization and management of production processes as well as building the pricing strategies, references to competitive units and decisions related to launch or withdrawal of a given type of a product. Very often the market success of a product depends not only on proper assumptions behind the demand but also relevance and accuracy of determining its manufacturing cost. Determining the level of a price based on this value and market analyses related to the acceptable price from the point of view of a customer constitute the basis for the realization of planned sales.

Manufacturing cost of a product is a defined parameter in the balance sheet law, but not explicit. The law allows different variants of its calculation. However it does not apply to the methods of calculation of indirect costs which constitute its element in case of multi-assortment production. As a result of application of different variants and assumptions referring to calculation of indirect production costs it is possible to obtain different results in reference to manufacturing costs.

The purpose of this study is to demonstrate the variety of determining the manufacturing cost of a product in terms of the balance sheet law and the results of this variety for the management of manufacturing processes.

The thesis adopted in this article is an assumption that the balance sheet law does not regulate the parameter of manufacturing cost in a clear manner, providing information only for the purposes of financial accounting and not for management accounting. The objective determined in this paper has been realized by means of case analysis based on data from selected production units in garments

and wood industry as well as an analysis of a legal status and literature.

PRODUCT AND ITS VALUATION

The product definition

The basic legal act of Polish balance sheet law is the Accounting Act which, inter alia, defines the components of entity's assets and the parameters of their valuation, conditions and methods of their application [15]. The solutions included in the Accounting Act with regard to the range, rules and methods of products' valuation as a component of assets are substantially in accordance with the International Accounting Standards¹ (IAS) 2 „Inventories” [3, 4]. This is a result of a process of harmonization and standardization of the Polish law on accounting. Therefore, later in this article the author will refer primarily to the Accounting Act.

Products are tangible results of an operational process of a manufacturing nature. In the process of selling tangible results are converted into financial results from operations. From the point of view of the determining of the value of a product it is important to explain the concept of a “product”. Products, to emphasize the fact that they are the result of a finished operational cycle, are connected with an adverb “finished”.

Finished products, from the point of view of balance sheet classification, are components of tangible current assets which constitute such components of tangible assets that are held for sale or consumption within 12 months of the balance sheet date or within normal operating cycle, typical for a given activity, if it lasts longer than 12 months (the Accounting Act, art.3). From the point of view of U.S. GAAP² the property criterion is also important [16].

¹ International Accounting Standards (IAS) are synchronized with the International Financial Reporting Standards (IFRS) [5].

² U.S. Generally Accepted Accounting Principles, Accounting Research Bulletin No 43-Chapter 4: Inventory pricing [16].

In accordance with the Accounting Act, tangible current assets consist of, inter alia, finished products including products and services that were manufactured or processed by a given unit. In order to become recognizable as finished products they need to obtain the status of merchantability.

It is the specificity of the operating cycle that determines whether the product is classified as a finished product or service.

Finished products are such products which have already gone through all stages of the production cycle in a given entity, and they fulfill quality requirements of the relevant standards (national, industry, company) or agreements with the customers and are intended for sale [7].

Services (works) of an industrial nature include, among others:

- services aimed at increasing the value of the products that have been manufactured by other entities,
- services aimed at restoring the value in use of the prod (e.g. renovation),
- public services [7].

The concept of a product should be also considered in the context of the operating cycle not connected with manufacturing activity, e.g. banking product, insurance product etc.

It should be emphasized that the Accounting Act does not include separate definitions of finished products and services. It does not also distinguish between the concepts of services and works (e.g. construction).

The concept of a product and characteristics of the rules of its valuation are crucial parameters of work organization and use of the resources of a company accounted for by the organizational units in the area of core business as well as the units that support by means of their actions the area of core business in the processes of utility, transportation and storage.

Making decisions on the basis of incorrect data related to the manufacturing cost can result in incorrect managerial decisions within the scope of performance of technological, control, transportation or storage operations. It can also constitute the basis for incorrect calculation of the norms in force in the production system across the whole company, department, production line or function as well as incorrect assessment of the production processes, design solutions, diversified assessment of assortment structure or planning and preparation of production.

Manufacturing cost of a product

The products are valued on the basis of the historical costs incurred in their production. The Accounting Act defines the rules of valuation of the finished products within a year or on a balance sheet date. It is essential for valuation to determine the total cost of partial costs falling within its scope as well as to comply with the principle of prudence. During the financial year finished products are entered into the accounting records, thus taken from production to warehouse, according to their actual manufacturing costs. Valuation of the balance sheet is more complex.

In accordance with art. 28 of the Accounting Act finished products are valued, at least on the balance sheet date, according to the manufacturing costs not higher than the net selling price. Therefore, if within the scope of the calcu-

lation of the balance sheet, it turns out that the value of the products determined according to their manufacturing cost is higher than the value of the net selling price, then it is indispensable to make revaluation write-down in order to lower the value of the products to the level of net selling price. Revaluation write-down is charged to operating costs of a given period. In practice it means that the value of the stock of finished products will be shown in the balance sheet³ according to their real, realizable value and not according to their manufacturing cost. Thereby, the financial result reported in the profit and loss account will be accordingly reduced [10, 14].

According to IAS 2 the products should be valued in reference to the manufacturing cost or according to the net value which is possible to obtain, depending on whichever of this costs is lower. It should be emphasized that in both solutions the principle of prudence should be equally applied.

The manufacturing cost in its nature informs about capital, human and tangible resources which are combined in order to obtain a product. In the process of production management the decisions about the purchase or effective use of production resources aimed at manufacturing of required products, undoubtedly include also the information about the manufacturing cost which is generated in the accounting departments of a company. Therefore, the knowledge of accounting principles related to the determination of manufacturing cost as well as procedures for measuring this parameter being in force in a given company with regard to the specificity of the production process and work organization is a crucial element. The way in which the manufacturing cost is determined is also important for the assessment of economic effectiveness, especially in the situation when a given company uses the integrated management systems, in which the key role is played by the data generated in financial modules [1]. The defined procedures for determining the manufacturing cost in a company decide also about the actual ordering and the actual management of information in a unit which enable improvement of processes and maintenance of the unit on the market [17].

Manufacturing cost of a product has been defined in Art. 28 paragraph 3 of the Accounting Act. In accordance with this provision the manufacturing cost of a product includes the cost directly related to a given product as well as legitimate part of costs indirectly related to the manufacturing of this product.

The range of direct costs is clearly defined. Direct costs include: the value of direct material used, the costs of acquisition and processing directly connected to production as well as other costs incurred in relation to bringing the product to the place and the form in which it is on the date of valuation.

It seems to be problematic to determine the indirect manufacturing costs. A reasonable part of indirect costs, appropriate for the period of manufacturing of a product, include:

- (all) variable indirect production costs,
- part of fixed indirect production costs that correspond to the level of these costs at the normal production capacity.

³ In accordance with the IAS/IFRS in the financial statement.

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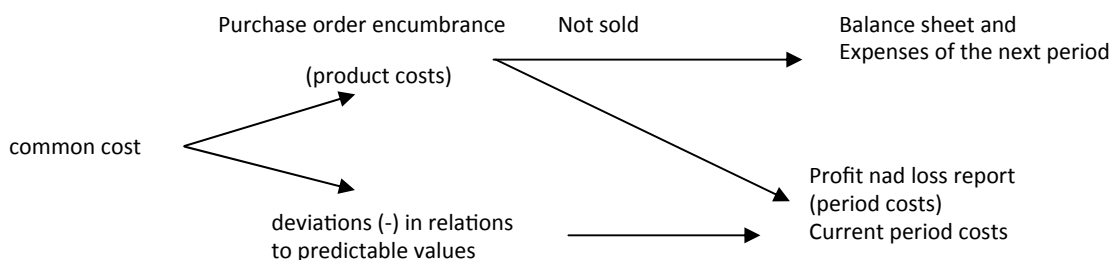


Fig. 1 The manufacturing cost of a product – incomplete absorption of common costs

Source: [6].

The normal level of use of production capacity is considered to be an average amount of production, consistent with the expectations in typical conditions, for a given amount of periods or seasons, taking into consideration planned renovations.

In justified cases, mostly resulting from the specificity of production and long-lasting preparation for sale (e.g. such products as long ripening cheese, wine, wooden construction elements) the manufacturing cost of a product may be increased by:

- servicing costs of debts incurred in order to finance the supply of products in the period of their preparation for sale or manufacture,
- foreign currency exchange gains decreased by net interest income that are connected with liabilities.

It means that if a given unit takes a foreign currency loan for this purpose, then both the cost of loan (interest, commission rate) and foreign currency exchange gains⁵ can be classified as the elements of manufacturing cost of a product. It is worth to emphasize that depending on the solutions adopted by a unit in a balance sheet policy, in reference to taking into account or not the above-mentioned costs, calculated final value of the manufacturing cost of a product will be different.

Case 1

In a unit manufacturing wooden construction elements (sawmill) due to the necessity of many months wood drying, a solution according to which the manufacturing cost of a product includes borrowing costs has been adopted in the accounting policy. In the current financial year a unit took a loan of 10000 EUR. The data related to the manufacturing cost of a product is presented in table 1.

Table 1 Elements of costs of products

Direct payment costs with mark-up	60000
Other direct costs	20000
Legitimate indirect production costs	50000
Non-legitimate production costs	10000
Interest on the loan 1500 EUR x 4,1 PLN/EUR	6150
Bank fees on the loan	1000
Foreign exchange losses in PLN	2000
The net sale price of products at the balance sheet	150000

According to the balance sheet policy adopted by a given unit the supply of the products will be valued at 139150 PLN. If the unit did not include in the manufacturing cost

the borrowing cost, the value of the products shown in the balance sheet would be 130000.

The Accounting Act listed costs that are not included in the manufacturing cost of a product. These are primarily non-productive costs as well as non-legitimate indirect production costs:

- costs resulting from unused production capacity and production losses,
- costs of general management which are not connected with bringing of the product to the place and form in which it is at the date of valuation,
- costs of storage of the finished and semi-finished, unless these costs are necessary in the production process,
- costs of the sale of the products.

These costs influence the financial result of a reporting period in which they were incurred. Figure 1 illustrates absorption of costs within the range of products and reporting results of production costs calculation.

In the area of calculation of production costs IAS solutions are slightly different from these of the Accounting Act. The solutions of U.S. GAAP, in turn, are less accurate when it comes to determining the costs which should be assigned to products (Accounting Research Bulletin No 43), and which are the costs of period.

It should be noted that according to the Accounting Act, smaller entities which are not required to audit or publish the annual financial statement, can calculate the manufacturing cost of a product in a simplified manner. According to this manner, all indirect costs of production are added to direct production costs. Thus, the entity does not have to divide indirect production costs into legitimate and non-legitimate, from the point of view of the use of production capacity.

The consequence of such approach is the possibility to show in financial statement of entities of various sizes⁶ different results of calculations referring to the determining of product manufacturing cost. In case when a given entity has unused production capacity and uses simplified manner of determining the prime costs of the sale, in its financial statement it shows inflated values of:

- the manufacturing cost of products sold in the profit and loss account,
- the manufacturing costs of products not sold capitalized in the balance sheet.

Referring to case 1, if an entity used the possibility to simplify calculations of legitimate indirect production costs, then it would declare the cost of 149150 PLN.

⁵ International Accounting Standards (IAS) are synchronized with the International Financial Reporting Standards (IFRS) [5].

⁶The size of an entity is indirectly defined in the Accounting Act by means of the following parameters: type of business, capital connections in the form of capital group, legal status, average annual employment, total assets of the balance sheet, net revenues from sales of goods, products and financial operations in the financial year.

THE INFLUENCE OF THE SELECTION OF AN ALLOCATION KEY ON THE VALUE OF THE MANUFACTURING COST OF A PRODUCT

In case of determining of the manufacturing cost of a product according to Art. 28 of the Accounting Act, it is particularly important to select properly an allocation key for calculation of variable indirect production costs on the products as the objects of calculation. An allocation key is a proportion which is adopted to allocate indirect costs of production in products. Indirect production costs can be settled by methods of:

- actual mark-up,
- stabilised mark-up.

The method of actual mark-ups is based on monthly determining of the mark-up of indirect production costs expressing the percentage proportion of indirect production costs actually incurred in a given period to the actual value or amount of an adopted allocation key in the same period. This proportion usually changes in subsequent periods.

An entity can also adopt a fixed key which is invariable in a longer period of time, determined on the basis of other parameters. The method of stabilised mark-ups requires application of proper stabilised rate (e.g. planned, normal) which can result in deviations from the level of actual indirect production costs.

Wrong selection of an allocation key often results in determination of abnormal manufacturing cost of all kind of manufactured products. As a result of technical and technological progress contribution of indirect costs increases year after year from the point of view of the structure of the manufacturing cost of a product. Thus, the bigger is this contribution, the greater are the consequences of improperly selected allocation key.

Case 2

In a production unit manufacturing different pieces of garment P1 and P2 recorded indirect production costs (all legitimate) in a current month were at the level of 400000 PLN. Direct production costs are shown in Table 2.

Table 2
Direct production costs

Position of direct manufacturing cost/ product	Product P1	Product P2	Total direct manufacturing costs
Direct materials	60000	120000	180000
Direct payment with mark-ups	140000	120000	260000
Other direct costs	30000	25000	55000
Total direct manufacturing costs	230000	265000	495000

In a current month the following number of products manufactured and taken from production to the warehouse was:

- products P1 500 units,
- products P2 300 units.

Work in progress at the beginning and end of the month has not occurred.

In a unit, the sum of direct costs was adopted as an allocation key. In previous years the costs of direct materials was used as an allocation key.

A mark-up ratio of indirect production costs

$$is = 400000/495000 \approx 0.8081 \text{ (80.81\%)}$$

A mark-up of indirect production costs on a product is in PLN:

- on products P1 185860 PLN (0.8081 x 230000)
- on products P2 214140 PLN (0.8081 x 265000)

The results related to the manufacturing cost of products P1 and P2 are presented in table 3.

Table 3
Manufacturing cost and unit manufacturing cost of products

Product/ manufacturing cost of a product	Total manufacturing cost	Unit manufacturing cost
Products P1	185860 + 230000 = 415860	831.72
Products P2	214140 + 265000 = 479140	1597.13
Total	895000	X

If an entity adopted direct materials as an allocation key, the results of settlement of indirect production costs would be as follows:

The mark-up of indirect costs

$$is = 400000/180000 \approx 2.222 \text{ (222.2\%)}$$

The mark-up of indirect production costs on products is:

- on products P1 133330 PLN (2.222 x 60000)
- on products P2 266670 PLN (2.222 x 120000)

Table 4 shows the results of the manufacturing cost and unit manufacturing cost.

Table 4
The manufacturing cost and unit manufacturing cost of products

Product/ manufacturing cost of a product	Total manufacturing cost	Unit manufacturing cost
Products P1	133330 + 230000 = 363330	726.66
Products P2	266670 + 265000 = 531670	1772.23
Total manufacturing cost	895000	X

Another area of potential errors is determining of the total cost of a product which additionally requires settlement of non-productive indirect costs, thus total management costs of a unit and the costs of sales. In case of settlement of management costs units often adopt the manufacturing cost of a product as an allocation key. If the manufacturing cost of a product for a diverse range of products is incorrectly set, then the settlement of management costs is also burdened with error. Consequently, total cost of a product, which often constitutes the basis for building the price (e.g. cost-plus-basis), includes double error.

Case 3

In reference to case 2, it is assumed that the total management costs were 110000 PLN and are settled in relation to the manufacturing cost of a product.

An entity settled management costs obtaining the results presented in table 5.

The mark-up of general management costs

$$is = 110000/895000 \approx 0.1229 \text{ (12.29\%)}$$

The mark-up of general management costs on products is:

- on products P151111 PLN (0.1229 x 415860)
- on products P258889 PLN (0.1229 x 479140)

Table 5

Total cost of a product when using the manufacturing cost of a product as an allocation key for settlement of management costs

Product/total cost	Total cost of a product	Unit cost of a product
Products P1	415860 + 51111 = 466971	933.94
Products P2	479140 + 58889 = 538029	1793.43
Total	1005000	X

If a unit still applied the cost of direct materials as an allocation key for settlement of indirect production costs, the results would be as follows (table 6).

Table 6

Total cost of a product when using the manufacturing cost of a product as an allocation key for general management costs

Product/ manufacturing cost of a product	Total manufacturing cost	Unit manufac- turing cost
Products P1	363330 + 44656 = 407986	815.97
Products P2	531670 + 65344 = 597014	1990.05
Total cost of products	1005000	X

The mark-up of general management costs is = $110000/895000 \approx 0.1229$ (12.29%)

The mark-up of general management costs on products is:

- on products P1 44656 PLN (0.1229 x 363330)
- on products P2 65344 PLN (0.1229 x 531670)

The results presented above demonstrate significant differences in the total cost of a product in both cases. If this value was the basis for settlement of minimum price with minimum profit margin, then the prices of products P1 and P2 would differ significantly. Therefore, adopted allocation key for settlement of legitimate indirect production cost in the manufacturing cost of a product directly influences the quality of information about its amount.

SIMPLIFIED METHODS OF PRODUCT VALUATION IN THE COURSE OF PRODUCTION AND THE LEVEL OF MANUFACTURING COST OF A PRODUCT

Distortions as regards determination of manufacturing cost of product may also be a consequence of adoption of simplified methods in a product valuation in the course of production. According to art. 28 of Accounting Act in the course of production the products are valued on a balance date by a parameter of product production cost. However, the Accounting Act also allows to use the simplified methods according to which a given entity may value the production in progress to the amount of direct production costs or it may not value them at all. A condition to apply the simplified method is that there will be no significant distortion in assets or the financial result as a consequence of its application. The Accounting Act does not regulate the issue of significance level. From the point of view of financial examination, the significance level for the balance

sheet total of 0.5-1.0% for 5-10% gross results is presented in literature [2]. Choice between the valuation of products in the course of production on the level of their production cost or only a part of costs (direct production costs) or their omission may results from the differences in the value of production cost of a product (of a disputable level of significance). This problem has been presented in case 4.

Case 4

In an entity producing products P a simplified method of products valuation in the course of production on the level of direct production costs has been adopted. Materials are issued in full at the beginning of production process. In the account books at the end of a period the following data regarding costs in PLN have been registered:

Direct materials	72000
Direct payments with surcharges	6600
Departmental costs	19600

At the beginning of a period there were no costs of production in progress.

In the analyzed period 400 units of product P were taken from the production to the warehouse whereas it results from conducted stock-taking that 100 units were started, advanced from the point of view of production costs absorbed in 40%. A simple division calculation was used in the calculations. The results of calculation of manufacturing cost of product with the use of direct costs of production for valuation of products in the course of production presents table 7.

Table 7

Manufacturing cost of product with the use of direct costs of production for valuation of products in the course of production

Cost position (calculated)	Manu- facturing costs of period	Number of calcula- ted units	Unit manu- facturing cost of product P	Unit manu- facturing cost of product in progress
Direct materials	72000	500	144	144
Direct payments with surcharges	6600	440	15	6
Indirect produc- tion costs	19200	400	48	-
Total	97800	X	207	150

Manufacturing cost of finished products amounts 82800 PLN (400 units x 207 PLN/unit) whereas cost of production of production in progress at the end of period is 15000 PLN (100 units x 150 PLN/unit).

If a given entity adopted only the cost of direct materials in order to value the production in progress, the production costs would be distributed differently than in the first case.

Results of the application of this variant are presented in table 8.

Manufacturing cost of finished product is 83400 PLN (400 units x 208.50 PLN/unit) whereas production cost of production in progress at the end of period is 14400 PLN (100 units x 144 PLN/unit).

With the adoption of valuation variant, according to which products in the course of production are not valued, the total production costs registered in a given period would be included in the cost of finished production and unit production cost of product would be 244.50 PLN/unit.

Table 8
Manufacturing cost of a product with the use of direct material costs to value products in the course of production

Cost position (calculated)	Manufacturing costs of period	Number of calculated units	Unit manufacturing cost of product P	Unit manufacturing cost of product in progress
Direct materials	72000	500	144	144
Direct payments with surcharges	6600	400	16,50	-
Indirect production costs	19200	400	48	-
Total	97800	X	208,50	144

The example given above shows that the value of production cost of a product may depend to a great extent on the adopted solutions as regards valuation of production in progress. The greater the number of products in the course of progress at the end of a period is, the more significant the differences may be.

It should be also noted that the choice of valuation method of unfinished products (not only products in progress but also semi-products) influences financial result indicated in the financial statement. If more production costs are assigned to unfinished production in a given period, than less amount of costs will be assigned to finished products – both sold and unsold [8]. The Accounting Act does not refer to the methods of division of production costs into finished and unfinished production. It is rather a problem of choice of adopted solutions within the cost accounting, specification and organization of production in a given entity, such as: varied or homogenous level of progress in production, adoption of planned quantity for unfinished or finished production, the ability to carry out inventory at the end of a period etc.

UNUSED PRODUCTION CAPACITY AND THE MANUFACTURING COST OF A PRODUCT

In bigger production units, especially resulting from privatization of state-owned enterprises or continuing business as state-owned enterprises, unused production capacity may occur.

In case of occurrence of unused production capacity in a unit it is necessary to divide fixed indirect production costs (CD) into legitimate (CD-Y) and non-legitimate (CD-N).

This in turn requires determination of the production volume corresponding to normal use of production capacity as well as building the budgets of fixed indirect production costs. This is a very important stage for proper settlement of indirect costs [11]. Proper determination of this partial budgeting is connected with the whole implemented (or not) process of budgeting. The next step is to establish stabilized mark-up of fixed production costs (SN), which can be calculated according to the following formula:

$$\text{Budgeted fixed indirect production costs}$$

The range of production corresponding to normal use of production capacity

The manufacturing cost of products will include only these fixed indirect costs, which will be calculated according to the formula:

$$CD-Y = SN \times \text{actual level of the utilization of production capacity}$$

If the actual level is lower than normal level of utilization of production capacity, the difference between registered in books fixed indirect production costs (CD) and legitimate indirect production costs (CD-Y) equals non-legitimate indirect production costs and constitutes cost element of the financial result of a current period.

If the situation is opposite in a unit then all CD are legitimate.

In a case when the volume of production is higher than normal in a given month, then rate of fixed indirect production costs is lower than stabilized rate. According to IAS 2 "Inventories" it is necessary to use then the actual rate. If the actual volume of production is lower than the normal level, then the stabilized rate should be applied for measurement.

Indirect variable production costs are calculated by actual rate according to the adopted allocation key.

From the above-presented algorithm used to determine the manufacturing cost of a product it is clear that in this case the solutions adopted by a unit within the scope of cost accounting as well as the methods of determination of the budget of fixed indirect production costs are of a particular importance. One should also pay special attention to the method of measurement of production capacity in a unit [13].

VALUATION OF EXPENDITURE OF PRODUCTS FOR THE PURPOSE OF FINANCIAL REPORTING

Valuation of products according to the actual production cost requires an appropriate calculation of delivered products and in consequence, the inventories disclosed in balance sheet. According to the Accountancy Act in this case one of the following methods should be used:

- FiFo (First in First out),
- Li Fo (Last in First out),
- weighted average price,
- detailed identification.

Solutions included in the International Accounting Standard do not allow to use LiFo method. In order to register products a given entity may also use a fixed standard price with a necessity to adjust deviation surcharges on the values of consumed products as well as the products in stock. Each of these methods may lead (and in most of the cases it actually does so) to the establishment of different product values constituting inventories of the entity, determined in the balance sheet as well as the values of products sold which are determined in the profit and loss account (total income statement).

SUMMARY

Balance sheet law in specific cases allows variability in determining the manufacturing cost of a product and, thus, valuation of products. This variability refers not only to the range of costs included in the manufacturing cost of products but also their internal accounting. An analysis of selected cases has shown that in different variants of determining of the manufacturing cost of a product different results are obtained depending on different assumptions. If one assumes that the information about the manufacturing cost of a product constitutes the basis for building its selling price, then it may turn out that it is significantly varied.

Selection of solutions related to determining the manufacturing cost of a product in a production unit within the scope of its cost accounting should take into account the specificity as well as "technical" possibilities of measurement. In production units with advanced technologies usu-

ally indirect costs are very high and in this particular case a selection of allocation keys for settlement is of a great importance. Incorrectly selected keys can significantly distort information about the manufacturing cost of a product. In units reporting lower level of indirect costs the problem of selection of allocation keys is much smaller. Introduction of simplifications in valuation in this case will not bring about any significant distortions.

Another problem is how to identify and settle indirect production costs into legitimate and non-legitimate from the point of view of the Accounting Act. Also in this case application of simplification depending on recognition of all costs as legitimate may cause serious distortion. For the quality of information about the manufacturing cost of a product it is important to properly define the budget of indirect production costs. Errors occurring at this stage will also result in distortions of the manufacturing cost of a product. Therefore, it is extremely important to have professional accounting firms or units [9] which are required to uphold a true representation of the economic substance of transactions carried out in a unit, including also the rules for determining the manufacturing cost of a product in the conditions of multi-variant solutions of the balance sheet law. Reliable and meaningful data delivered to the management are an indispensable condition (however not sufficient) to make their proper decisions within the area of the management of production processes. The solutions of the balance sheet law are primarily subject to financial reporting and to a lesser extent to management purposes. For the purposes of making decisions, an entity should use the achievements of management accounting and, in particular, modern and problematic cost accounting (e.g. activity-based, direct costing) [12]. If such solutions have not been implemented in a given unit, it is necessary to use the generated financial statements of financial data related to the manufacturing cost of a product, with a proper analysis of an adopted variant of its calculation.

Important, from the point of view of the accuracy of determination of the manufacturing cost of a product, is also the method of valuation of work in progress. Incorrect assumptions and consequently selection of the method may be the next cause of distortions of the manufacturing cost of a product.

Incorrect valuation of the manufacturing cost may also lead to the irregularities in the process of production management, and in particular in organization and control of production processes.

Incorrectly settled manufacturing cost of a product (products) may cause negative effects in the area of the management of costs (cost reduction) because it negatively affects proper identification and classification of losses.

Due to the demands of the market related to supplying the clients with more and more varied products, manufactured in smaller parts (e.g. in the garment industry), it is essential to provide the necessary flexibility of the produc-

tion process. Incorrect information about the cost of various types of products may also disrupt this system.

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