



ELEMENTS OF COSTS MANAGEMENT IN MANUFACTURING ENTERPRISE ACCOUNTING

Marcin Stępień¹, Małgorzata Łęgowik-Małolepsza², Sylwia Łęgowik-Świącik³

^{1,2,3} Czestochowa University of Technology
Faculty of Management

Abstract: The purpose of the article is to identify, measure and record costs in a manufacturing company. The publication indicates the role and importance of information concerning the costs of production and other operating costs incurred by the company in the accounting information system and illustrates the impact of costs on the business management system. The first part of the article describes the identification and measurement of manufacturing company costs from the perspective of broadly understood business management. The next part presents the results of empirical research on production costs and other analyses of operating costs in the manufacturing company. The considerations included in the study focus on factors that may affect improvement of management effectiveness by identifying and introducing cost control mechanisms. The aim of the article is to identify and evaluate the relationship between the level of analytical identification of costs in the studied areas and management effectiveness. The research methods applied in the article are literature studies, descriptive analysis and analysis of costs systematization in a manufacturing company. The research period covers the years 2015-2017. The issue of identifying and measuring the production costs in a company is important and current due to its impact on management processes in the field of enterprise effectiveness.

Keywords: management accounting, costs, cost management

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Introduction

Effective enterprise management requires data not only on the achieved results (Stachowicz 2002, pp. 290-295; Mesjasz-Lech 2011, p. 75; Nogalski 2013, pp. 9-21; Skowron-Grabowska 2015, p. 361), but above all on the incurred costs. Economic information providing complete data on economic results should include, in addition to the obtained revenues, a statement of incurred costs (Niemczyk 2010, pp. 550-555; Romanowska 2014, pp. 13-23). The recipients of information require more accurate and precise data on the costs of consumed assets (Jakubiec, Barcik, Dziwiński 2018, pp. 82-84), current and future products, customers, sales channels, cooperators,

¹ Marcin Stępień, PhD, marcin.stepien@wz.pcz.pl, ORCID: 0000-0002-04670-8093

² Małgorzata Łęgowik-Małolepsza, PhD, malgorzata.legowik-malolepsza@wz.pcz.pl, ORCID: 0000-0002-7698-9607

³ Sylwia Łęgowik-Świącik, PhD, sylwia.legowik-swiacik@wz.pcz.pl, ORCID: 0000-0002-39639499

development projects (Jelonek 2011, p. 13), employees, spin-offs, or branches. User information needs determine a wide range of potential collection, grouping and cost calculation facilities (Świdorska, Warowny, Świdorska 2016, p. 172). This principle applies especially to manufacturing enterprises which bear not only costs associated with their production activities (Krzakiewicz 2007, pp. 52-61), but also costs associated with the commercial, accounting or administrative operations of the enterprise (Kaplan, Norton 1996, p. 41; Kościelniak 2016, pp. 125-133). Identifying and measuring costs incurred by a production unit should take into account the nature of production and the organisation of activities of the described entity (Kim, Mauborgne 2004, pp. 76-84). For the purpose of analysing the production costs or, more broadly, a production enterprise, the unit is not obliged to create new cost accounts (Damodaran 2006, p. 4). In order to carry out a survey on production costs systematization, accounting system solutions to segregate cost items can be used, which make it possible to identify and measure economic events in relation to production costs. The aim of the study is to identify and evaluate the relationships between the level of analytical identification of costs of a production company's activity in the studied areas and the effectiveness of management. The applied research methods are literature studies, descriptive analysis and analysis of the systematization of costs of commercial activity. Empirical research was conducted on the basis of economic information of a selected trading company in Poland.

Characteristics of costs in the production company

Economic activity consists mainly of processes comprising systematic and continuous activities. They are related to the performance of specific tasks as part of the basic operating activities of the economic unit. At the same time, these activities occur in a logical order and are combined into activities and phases of the economic process. The costs related to the performing activities within the basic operations are subject to systematic cost accounting as well as periodical analyses (Nowak 2014, p. 462). The concept of costs accompanies any economic activity, and the costs of production activities are a manifestation of the operations of manufacturing companies. By building analytical structures in the field of the records and cost system of business operations, enterprises aim, among other things, to:

- (a) determine the operating costs,
- (b) determine the financial result of the entities,
- (c) determine employee remunerations,
- (d) determine factors shaping the entity's costs,
- (e) analyze, control and evaluate the proper management of resources and the persons responsible for that management,
- (f) plan business costs (Chluska 2016, pp. 79-80).

The concept of cost is defined in the *Accounting Act*. It emphasizes the capital approach to the cost category, by which is understood a probable decrease in economic benefits in reporting periods, of a reliably defined value, in the form of a decrease in the value of assets or an increase in the value of liabilities, which will lead to a decrease in equity in a manner other than a withdrawal of funds by the owners (*Accounting Act*, art. 3, sec. 1, item 31). The statutory recognition of costs

refers to production costs, which are the consumption of accumulated resources, using human labour and third party services (Micherda 2003, pp. 12-13). The definition of costs directly refers to the costs of production activity, in which, using the material resource, measuring the cost of labour and other costs related to the production process, finished products are produced.

The costs of the consumption of direct materials are understood as the value of consumed raw materials included in finished products or semi-finished products, according to the manufacturing recipe. Stocks of raw materials (especially production materials) are classified as flexible production resources, which determines the function that the value of their consumption is a variable production cost.

Direct materials can be divided into several groups:

- raw materials subject to change in the production process being the basis of the manufactured product,
- the acquired resources, which are a part of the finished product,
- auxiliary materials, which are part of the finished product, facilitate the processing of resources,
- packaging protecting the finished product.

Other raw materials, whose consumption in the production process is not directly related to the manufactured products but is mainly aimed at ensuring the entire production process, are classified as intermediate materials (Leszczyński 2016, p. 953).

The second significant cost in production processes is wage costs, often referred to as direct wage costs, is the value of direct work devoted to product manufacturing. Activities directly related to the production process include the duration of technological operations necessary to produce goods. Direct labour costs include variable labour costs and fixed costs independent of the production output. In manufacturing enterprises, direct labour costs are usually mixed costs, consisting of variable and fixed costs, or are entirely fixed (Young, O'Byrne 2001, p. 18).

The costs of external services, emphasized in the quoted cost classifications, are currently a significant element of the costs of production units, especially those whose part of the production chain has been located at external contractors.

Taking into account the possibility of assigning costs to the calculation items, it is possible to distinguish between direct costs and indirect costs (Rokita 2014, p. 496). Direct costs should be understood as those costs which can be clearly identified as elements of the finished product, determined on the basis of source documents. Indirect costs accumulated in the period are allocated to the calculation items with the use of the methodology of their distribution with the use of allocation keys (distribution keys). The choice of distribution keys is particularly important from the point of view of production cost management, as it ultimately determines the amount of indirect costs allocated to the object of the calculation items.

The amount adopted as the allotment key should, among others, be immanently related to the settled costs, reflect the relation to the settled cost items, characterise the facilities to which indirect costs are related, and be selected in such a way that it is possible to assign the number of key units to the cost reference objects (Jacobides, Billinger 2006, pp. 249-261).

The allocation of indirect costs to calculation items always raises numerous doubts, among others, the selection of allotment keys, the legitimacy of settling individual cost items or their size. In order to eliminate resolvable doubts, various ways of allocating the average costs have been developed, the proper application of which should enable objective assessment of the amounts allocated to the cost calculation item.

Identifying the costs of commercial activities in a company – case study

Empirical research was conducted on the basis of targeted selection of a medium-sized production company located in the Silesian Voivodship. The research period was 2015-2017. The research tool used to measure the production costs of finished products in the surveyed company is the analysis of production costs allocated to costs by type.

The company operates mainly in Poland and, to a large extent, in the Ukraine, Lithuania, Romania, the Czech Republic, Slovakia and Germany. The company manufactures accessories for window decoration. In 2004 the company obtained the ISO 9001:2001 certificate and in 2009 and 2010 it was awarded the Customer's Laurel. In 2009, the company changed its organizational and legal form from a general partnership to a limited partnership, which was reflected in the organizational structure and scope of duties carried out by separate units. The company delivers its products to network customers, cooperating with many smaller business entities and serving the market of individual customers at the same time. The analyzed company does not have its own transport fleet to serve customers, therefore a separate transport company is responsible for delivering goods to end customers, which owns four IVECO brand delivery vans with a maximum permissible gross weight of 3.5 tonnes each. In addition, the company has established cooperation with corporate logistics operators.

In the surveyed company, a member of the management board for procurement, production and logistics is responsible for the areas of production and logistics. Through his subordinate department heads, he supervises 57 employees responsible for the direct production process.

The sales, marketing and product management department consists of 8 people, responsible for serving customers by preparing orders for execution and after-sales invoicing. The export department, separate in the structure, is responsible for selling products outside the country, all kinds of documentation, international transport configurations and the circulation of customs documents. The retail sales department, separate in the structure of the sales department, is responsible for selling products to individual customers, together with circulating orders, payments, shipping or sales documents. Marketing department employees prepare leaflets and advertising brochures, work on the visualization of stands maintained by contractors and are responsible for updating the company's website.

The finance and accounting department, together with the human resources and administration department consists of 4 persons. Employees of the finance and accounting department are responsible for keeping records of business operations carried out in the company, and also perform a control function in relation to persons entrusted with the custody of the company's property. The administration department is responsible for proper maintenance of the company's assets, while ensuring their efficiency.

- In the first stage of the examination procedure, the following costs were identified:
- direct costs of roller blind and pleat production, in which the unit groups costs related to the production of the above mentioned products. In this position the costs of the consumption of direct production materials, labour and other direct production costs are allocated,
 - departmental production where the indirect costs of used materials, labour and other indirect production costs were identified,
 - selling expenses, in which the entity groups costs related to customer sales services,
 - management costs, to which the entity allocates the costs of the accounting, administration and management departments.

In the surveyed company, separated calculation costs characterise the places where costs arise in the company. The calculation system includes the criterion of cost identification to improve the management of key areas of the company's operations.

When examining the analytical items of the separate costs of production activity of the surveyed company, attention was paid to the systematics and trend of the identified costs of production activity in the mentioned cost items. 2015 was the first year of the company's activity in which the costs were distinguished according to the above scheme. The obtained results are presented in the diagrams below.

The conducted research shows the performance indicators based on the relation of production costs, indirect production costs and management costs to total costs. Analysis of the trend of the costs under examination in total costs shows their decrease. The production costs of 54% in 2015 dropped to 52% in 2017. Indirect production costs of 1% in 2015 dropped to 0.66% in 2017. The only costs whose trend analysis showed an increase are management costs, which increased from 36% in 2015 to 38% in 2017. Thus, the gross margin of the productivity index increased due to a decrease in production costs and indirect production costs.

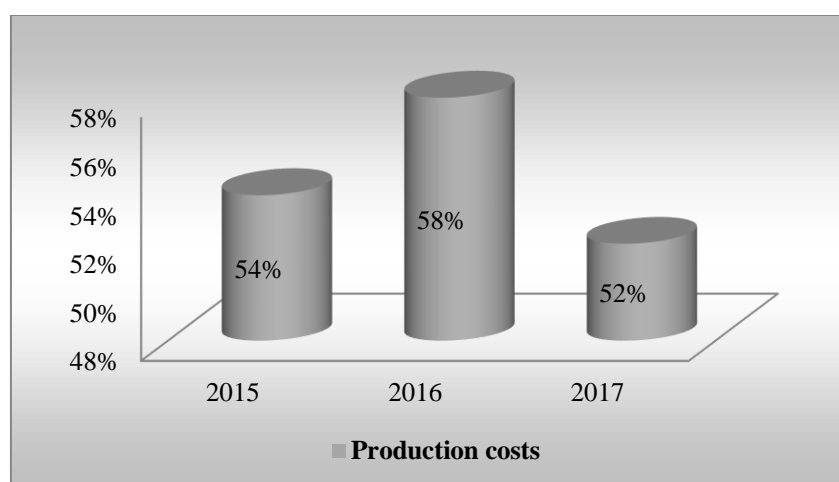


Figure 1. Percentage share of production costs in total costs

Source: Own calculations

The research carried out in the scope of analysis of the trend in the costs of production activity results in a decrease in the costs of production, which is a result of a change in the manufacture of products for large customers (retail chains) in favour of individual customers (*Figure 1*).

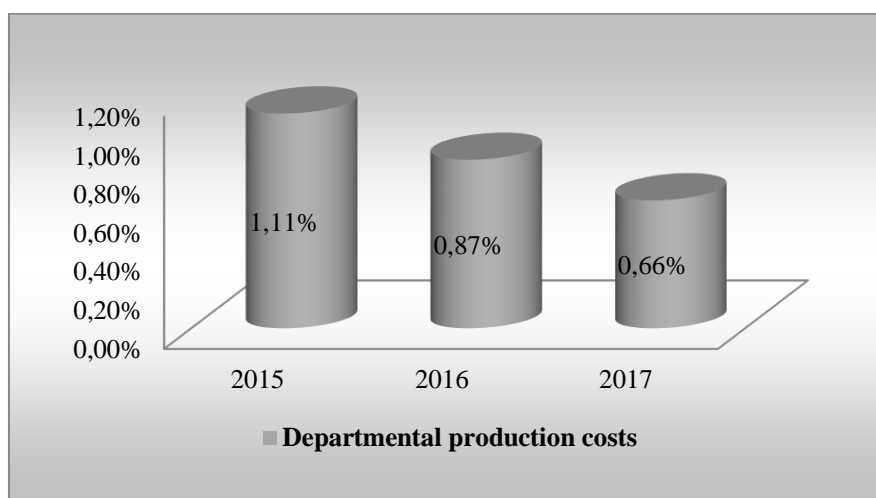


Figure 2. Percentage share of departmental production costs in total

Source: Own calculations

Analyzing the trend of departmental production costs, a downward trend can be observed, caused mainly by a change in the company's customer service (*Figure 2*).

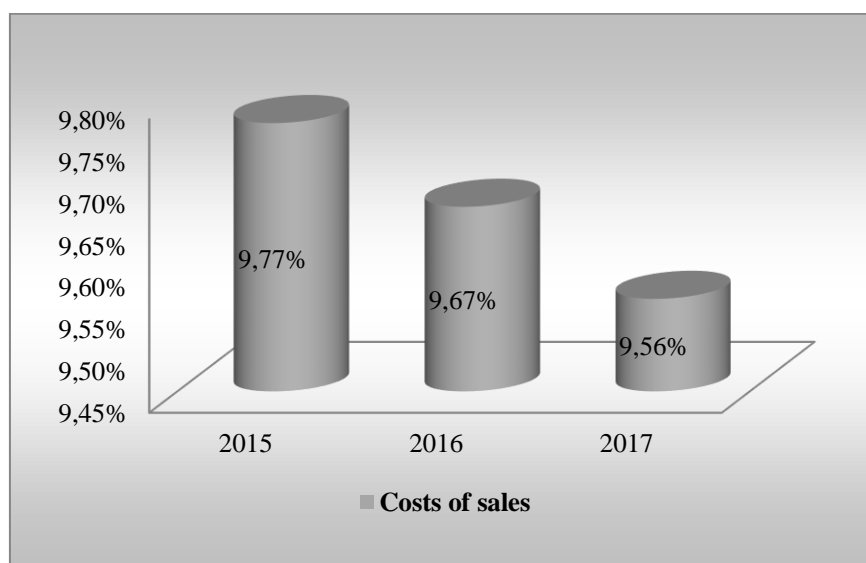


Figure 3. Percentage share of sales department costs in total costs

Source: Own calculations

When examining the trend in the costs of the sales department, a decrease in costs is noticeable, caused by the lack of fees associated with the unit operating in retail chains, in favour of sales to individual customers (*Figure 3*).

The presented research shows that a significant component of total costs in the enterprise are management costs (*Figure 4*). In the last of the surveyed years, they increased to nearly 40% of the total costs.

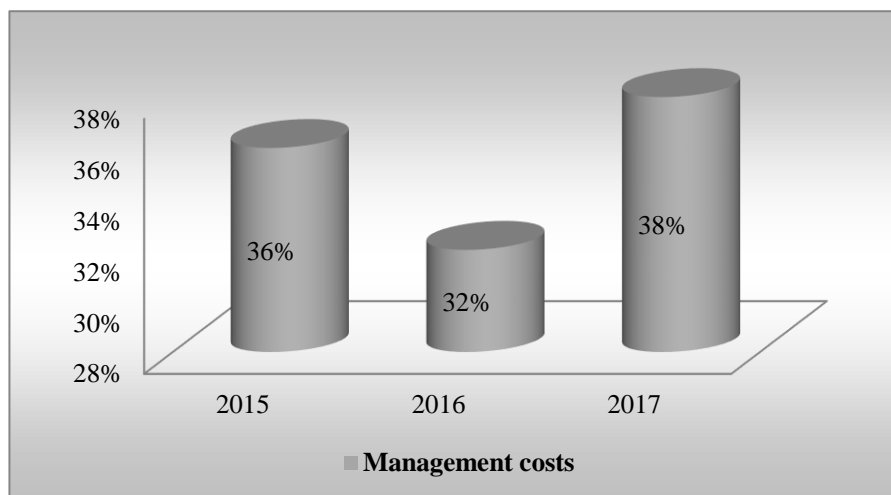


Figure 4. Percentage share of management costs in total costs

Source: Own calculations

The presented research shows that the share of commercial activity costs (costs connected with serving network customers) is systematically decreasing in the company. There is a trend of an increase in management costs compared to the total costs incurred by the company. The share of departmental production costs is decreasing. Taking into account the above considerations, it can be concluded that the purpose of measuring the costs of production activities is the valuation of manufactured products, together with the planning and control of all the activities of the enterprise.

Conclusions

The aim of the study was to identify and evaluate the relationships between the identification and registration of costs in a production company and the effectiveness of management. In the light of the conducted considerations, it can be concluded that the information obtained during analysis of the production activity costs makes it possible to react to changes in factors in the broadly understood environment. Establishing the trend of production activity costs facilitates making accurate decisions in strategic areas of activity of the surveyed company.

The division of costs in the accounting system related to production activity, sales and management costs was also performed, constituting an important element

of the company's functioning. Partitioning the costs of commercial activities and management is important to increase enterprise management efficiency, since identifying, measuring and recording the costs of the general production activities of the enterprise is a basic condition to improve management of the costs in question.

The recommendation for the surveyed company is to implement an analytical division of the costs of the management together with the sales department into analytical items allowing detailed identification of incurred costs. Such a solution would make it possible to assess the costs of management and commercial activities considered as part of the overall costs incurred by the company in terms of improving the efficiency of management of the costs in question.

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ELEMENTY ZARZĄDZANIA KOSZTAMI W RACHUNKOWOŚCI PRZEDSIĘBIORSTWA PRODUKCYJNEGO

Streszczenie: Celem artykułu jest identyfikacja, pomiar i rejestracja kosztów w przedsiębiorstwie produkcyjnym. Publikacja wskazuje na rolę i znaczenie informacji dotyczących kosztów produkcji i innych kosztów operacyjnych ponoszonych przez przedsiębiorstwo w systemie informacyjnym rachunkowości oraz obrazuje wpływ kosztów na system zarządzania przedsiębiorstwem. W pierwszej części artykułu opisano identyfikację i wycenę kosztów przedsiębiorstwa produkcyjnego z perspektywy szeroko pojętego zarządzania przedsiębiorstwem. W następnej części przedstawiono wyniki badań empirycznych dotyczących kosztów produkcji i innych analiz kosztów operacyjnych w przedsiębiorstwie produkcyjnym. Rozważania zawarte w opracowaniu koncentrują się na czynnikach, które mogą wpływać na poprawę efektywności zarządzania poprzez identyfikację i wprowadzenie mechanizmów kontroli kosztów. Celem artykułu jest rozpoznanie oraz ocena zależności między poziomem identyfikacji analitycznej kosztów w badanych obszarach a efektywnością zarządzania. Metody badawcze zastosowane w publikacji to badania literatury, analiza opisowa i analiza systematyzacji kosztów w firmie produkcyjnej. Okres badań obejmuje lata 2015-2017. Kwestia identyfikacji i pomiaru kosztów produkcji w przedsiębiorstwie jest ważna i aktualna ze względu na jej wpływ na procesy zarządzania w zakresie efektywności przedsiębiorstw.

Słowa kluczowe: rachunkowość zarządcza, koszty, zarządzanie kosztami