

Translated Article[†]

SOURCING MANEUVER AS A TOOL TO IMPROVE THE CORPORATE FINANCIAL POSITION



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Abstract

Importance The research studies whether the sourcing practice could be appropriate to increase the financial sustainability of an industrial enterprise by changing the model for resource distribution and use.

Objectives The research pursues improving the corporate financial position by applying the sourcing maneuver model. We also outline proposals to improve the corporate financial position.

Methods The research relies upon the sourcing maneuver model, i.e. delivery of outsourcing services, thus putting additional load to production areas. We articulated our proposals for improvement of the financial position through the direct costing method.

Results The article presents our proposals for improving the financial position of the industrial enterprise by implementing the sourcing model.

Conclusions and Relevance Whereas the proposals for improving the financial position of the industrial enterprise are based on the sourcing maneuver, it means that further studies into methodological approaches for managerial decision making will have big significance. The findings can be useful for further researches into the economy of sourcing and direct costing development. They can be also helpful for heads of financial and economic departments of large industrial enterprises.

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Introduction

The financial position is the most critical metric of any industrial enterprise. The higher the financial position

is, the more attractive and creditworthy the company is for investors, banks, buyers and suppliers, and the more competitive its products are.

Russia and countries worldwide have been experiencing the unfavorable business climate for the recent years. On the one hand, it makes businesses cut their spending or quit the market at all, but, on the other

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hand, it draws businesses attention not only to their products, but also to the model for corporate governance, distribution and use of resources.

Currently, professional economists lack common understanding of *the corporate financial position* [1, p. 9]. Scholarly and practical literature provides distinct definitions:

- real and potential opportunities of the firm as a business partner, investee, taxpayer [2, p. 62];
- an economic construct characterizing the capital in its turnover and the business entity's ability for self-development as at the given moment [3, p. 2–3];
- a set of indicators reflecting the availability, allocation and use of financial resources [4];
- a set of indicators reflecting the entity's ability to repay its debts¹;
- a metric of the current financial competitiveness of the entity, i.e. the ability to pay and repay, use of financial resources and capital, fulfillment of obligations owed to the State and other business entities [5, p. 4];
- the ratio of assets and liabilities, i.e. funds and their sources².

Despite multiple definitions of the financial position, they all deal with such concepts as solvency, competitiveness, sustainability, creditworthiness, cash-to-current-assets ratio, corporate capabilities, etc.

Discrepancies in the definitions directly complicate analyzing the corporate financial position and outlining measures, proposals and managerial decisions for improving the financial position.

Omitting details of the existing approaches to defining and analyzing the financial position, this research relies on the assumption that any business entity strives to the most effective management and use of its resources. For example, loading of the full production capacity it has. Such pursuits foster a growth in the production profitability and lower the break-even point, thus enhancing the financial position.

¹ Markar'yan E.A., Gerasimenko G.P. *Finansovyi analiz* [Financial analysis]. Moscow, Prior Publ., 1997, p. 41.

² Sheremet A.D., Negashev E.V. *Metodika finansovogo analiza* [Financial analysis techniques]. Moscow, INFRA-M Publ., 1999, p. 139.

In this research, we examine opportunities the sourcing practice may offer for improving the financial position of an industrial enterprise. We consider the above ideas and a new economic stream – *the sourcing technique* or *sourcing economics*. It rearranges models for allocation and use of resources. We also focus on the method of direct costing and sourcing maneuver models.

Direct Costing Techniques

Direct costing is a modern and popular method for cost management, which offers some substantial advantages:

- it facilitates a comparative analysis of the profitability of various products [6, p. 89];
- it shows how costs change and depend on their volume and prompt managerial decisions taken [7, p. 511];
- it helps trace break-even points and the floor of the product price [6, p. 89].

However, direct costing makes it difficult to differentiate fixed and variable production costs, since definitely fixed or definitely variable costs are very rare [7, p. 512]. In this research, corporate costs are assumed to be definitely fixed or variable.

Direct costing tools are the most convenient and appropriate in suggesting how the corporate financial position should be improved using the sourcing maneuver model, since possible scenarios shall be modeled by decomposing the product cost into fixed and variable constituents and net profit.

Sourcing Maneuver

Sourcing maneuver models are a type of hybrid sourcing models. If compared with other hybrid models, such as co-sourcing and noo-sourcing, sourcing maneuver models have their own distinctions. They are compound structured, combinable with each other to create an integrated (or comprehensive) sourcing maneuver model, and complex cooperative ties between customers and service providers.

We point out the following sourcing maneuver models that relate to corporate performance and restructuring of production facilities:

- localization of components of products manufactured by a joint venture (*Fig. 1*) [8, p. 274];
- incorporation of a joint venture on the basis of a subsidiary (*Fig. 2*);
- localization of components of the subsidiary's products (*Fig. 3*);
- localization of components of the third party supplier's products (*Fig. 4*);
- additional load for production facilities through outsourcing services (*Fig. 5*) [9, p. 71–78], etc.

Please refer to *Table 1* for the description and strengths of the above sourcing models.

We examine the model for additional loading of production facilities through the delivery of outsourcing services as an approach to improving the corporate financial position.

As seen in the very wording of the model and some of its strengths indicated in *Table 1*, the model is aimed at the more effective use of production capacity. Hence, if this solution is properly implemented, it will substantially reinforce the corporate financial position.

It is sensible to specify indicators, which, on the one hand, describe the financial stability of an entity, but, on the other hand, illustrate those effects and advantages the sourcing maneuver model generates for the entity. We point out three key indicators and review them in more detail.

Indicators to Evaluate the Sourcing Maneuver Model

1. *Cutting the share of unnecessary expenditures within total fixed costs.* The concepts of unnecessary (idle) costs and useful costs were introduced by economists O. Bredt [10, p. 984] and E. Gutenberg [11, p. 56]. The definitions provide the best description of the current situation in the Russian manufacturing sector, where enterprises incur high overhead expenses and sustain idle production capacities.

Idle costs still account for a big part of fixed costs incurred by the Russian industrial enterprises, thus undermining their competitiveness and financial stability. The Volgograd Tractor Plant, which produces metal items, had the 10 percent idle production

capacities before it contracted them out³. Other enterprises in the Russian processing industries face the similar situation.

Enterprises will ensure an additional load for their idle production capacity and bring their idle costs down within total fixed costs if they resort to the sourcing maneuver model by offering outsourcing services and starting the diversified production or entering the spare parts market (*Fig. 6*).

On the one hand, it supports the financial sustainability of an entity and, on the other hand, keeps friendly and long-standing relationships with outsourcing companies in the time of economic downturn, since entities do not need to switch the production back to the in-source format at all or to a much lesser extent than it could be in case of idle capacities. It happened with OAO RIAT, a Russian company. During the economic downturn of 2008–2009 it had to relaunch some production lines using its own capacities [12].

2. *An increase in net profit.* If the entity ensures an additional load for its production capacities, following the sourcing maneuver model, it not only makes its fixed costs more useful, but also gains additional net profit, thus reinforcing its financial sustainability.

In this case it is reasonable to refer to KAMAZ Group and its practices of restructuring its production facilities. Those practices were based on another sourcing maneuver model, i.e. the localization of components of the joint venture's production.

To measure the economic effect of the model, we introduce the full marginal profit of the product after the sourcing maneuver model is applied⁴.

In this research, we unfold this idea and adopt a new indicator – *the full net profit of the product after the sourcing maneuver model*. As the indicator implies, net profit from the new product shall be allocated as the existing production capacity is to be additionally

³ Shelikhin I.S. [The evolution of the industrial outsourcing practice in Russia, where large business can earn with little investment]. *Kompas promyshlennoi restrukturalizatsii = The Compass of Industrial Restructuring*, 2003, no. 4.

⁴ Farkhutdinov I.I. [Restructuring of industrial enterprises through sourcing maneuver]. *Sotsial'no-ekonomicheskie i tekhnicheskie sistemy: issledovanie, proektirovanie, optimizatsiya = Socio-Economic and Technological Systems: Research, Design, Optimization*, 2013, no. 1, pp. 3–4.

loaded by delivering outsourcing services with respect to the core product. The profit allocation is expressed with the following formula:

$$S_{TNP} = S_{NT} + S_{NTS},$$

where S_{TNP} is full net profit from the product after the sourcing maneuver model;

S_{NT} is net profit from the core product;

S_{NTS} is net profit from the new product, as part of the sourcing maneuver model, per a unit of the core product.

3. *A decrease in the break-even point of the entity.* The break-even point is one of the key aspects for the financial sustainability of an entity. The lower the break-even point is, the more resilient to economic downturns the entity is.

The break-even point definitely decreases if the sourcing maneuver model is used, thus ensuring the more effective operation of the production capacity and, subsequently, generating additional net profit (Fig. 7).

Our research is guided by several assumptions.

1. Fixed costs do not rise as a result of the sourcing maneuver model.
2. The entity manufactures two types of products – the one is the core product and the other is not.
3. Assuming that the non-core product does not increase fixed costs, i.e. fixed costs of the non-core product is part of the fixed costs incurred for the core product⁵, the price for the new product consists of two components – net profit and variable costs, provided the production capacity is additionally loaded with outsourcing services.

In such circumstances, the break-even point of the non-core product is zero. That is why we deal with the core product cost and respective net profit attributed to it so to form the indicator reflecting a decrease in the break-even point.

The given indicators are not sufficient and versatile to evaluate other models for sourcing maneuver.

⁵ Reduction in the share of unnecessary (idle) costs within fixed costs of the entity.

However, they are reasonable to consider when the production capacity is additionally loaded with outsourcing services, with positive effects certainly enhancing the corporate financial position.

To illustrate the sourcing maneuver model in practice, we refer to the foundry of KAMAZ Group's metallurgical plant. The production capacity of the plant was additionally occupied with orders from the Russian Railways [13, p. 71].

In addition to the above parameters, we shall mention other ones.

1. *Increased stock of financial sustainability.* The parameter indicates the extent to which product sales will grow, if the sourcing maneuver model is applied to ensure the break-even maneuvering in the market [14, p. 213].

2. *The balance of sale of risky and less risky products* [15, p. 85]. For example, the release of new or upgraded core products is exposed to the high risk of technical and ethical barriers.

3. *Other metrics*, like the diversity effect [16, p. 2], synergistic effect [17, p. 3–4], etc.

However, this research focuses on metrics reflecting a decrease in idle costs within fixed costs, increase in net profit, lower break-even point and sets up the following methodological approaches.

Cost Effectiveness Evaluation

The following expression underlies the approach to applying the sourcing maneuver model:

$$\begin{cases} E_1 = D_1 - D_{ISM} \\ E_2 = \sum_{i=1}^n (S_{TNP_i} - S_{NT_i}) \\ E_3 = BER - BER_{SM}, \end{cases}$$

where E_1 is change in the share of idle costs within fixed costs provided the sourcing maneuver model is applied;

D_1 is the share of idle costs within fixed costs before the sourcing maneuver model;

D_{ISM} is the share of idle costs within fixed costs after the sourcing maneuver model;

E_2 is change in net profit when applying the sourcing maneuver model;

n is the number of core products;

E_3 is change in the break-even point when applying the sourcing maneuver model;

BEP is the value of the break-even point before the sourcing maneuver model;

BEP_{SM} is the value of the break-even point after the sourcing maneuver model.

Feasibility Study

For purposes of this analysis, the positive trend in E_1 – E_3 is desirable but insufficient. It is not only important to assess target values of positive changes when applying the sourcing maneuver model, but also, at least, attain the goal. That is why, decision-makers choose to additionally load the production capacity by delivering outsourcing services, provided the following condition is met:

$$\begin{cases} E_1 \geq a \\ E_2 \geq b \\ E_3 \geq c, \end{cases}$$

where a is the target value of change in the share of idle costs within fixed costs when applying the sourcing maneuver model;

b is the target value of change in net profit when applying the sourcing maneuver model;

c is the target value of change in the break-even point when applying the sourcing maneuver model.

The values of a , b and c depend on numerous factors, such as internal specifics of the production process, corporate program for strategic development, etc. Hence, these metrics are assessed individually at each enterprise. However, we believe further researches should focus on methods for evaluating the metrics a , b and c .

Discussion

We would like to add some reasonable comments to the proposals for improving the corporate financial position through the sourcing maneuver model.

1. The model for additional loading of production facilities through the delivery of outsourcing services may increase fixed costs, while this research follows the scenario of unchanged fixed costs.

Evaluating the feasibility and economic effect of the sourcing maneuver model, which is coupled with increasing fixed costs of the entity, the first formula mentioned above should be adjusted in the following way:

$$S_{TNP} = S_{NT} + S_{NTS} - S_{IFCS},$$

where S_{IFCS} is a growth in fixed costs after the sourcing maneuver model is applied, allocated per a unit of the core product.

2. An increase in corporate marginal profit can also be used as an alternative to an increase in corporate net profit in evaluating the feasibility and economic effect of the sourcing maneuver model, which raises fixed costs.

3. The model for additional loading of the production capacity through the delivery of outsourcing services, and the proposed methodological approaches are applicable to corporate processes or functions relative to manufacture of a component (or a product) for the customer.

For example, the customer is unable to perform a certain function because it lacks relevant competence and (or) production capacity, but the entity has them. Combined efforts and capabilities may enable the entities to solve their production tasks [18].

4. The effect of the sourcing maneuver model for additional loading of the production capacity through the delivery of outsourcing services may be even more important if entities jointly run the hybrid sourcing-co-sourcing model⁶.

If the entity suffers from bottlenecks in manufacturing its core products, it may substantially roil the efficiency of the sourcing maneuver model, since it will obstruct the 100-percent loading of the idle production capacity. In such circumstances, co-sourcing will significantly allow for additional loading of production facilities through the delivery of outsourcing services.

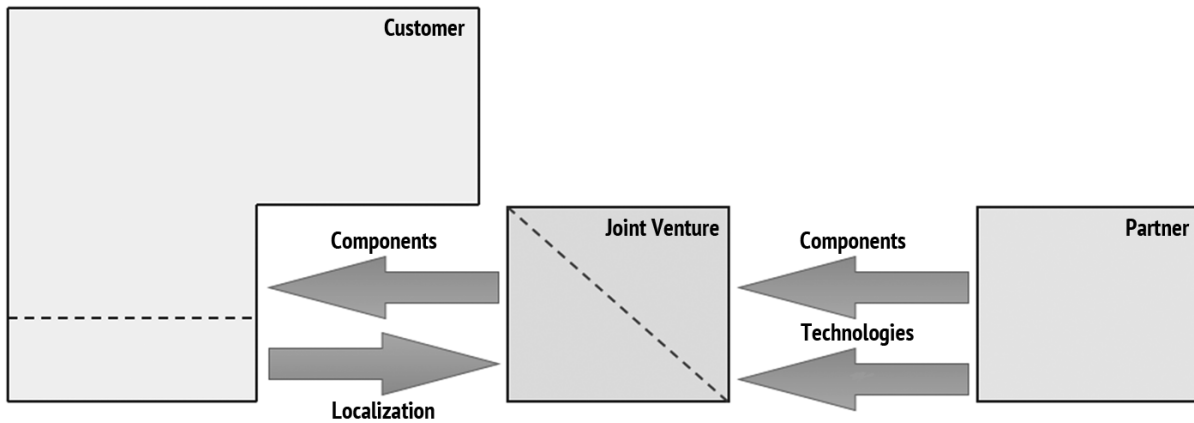
⁶Luzin A. *Klyuchevye kontseptsii sovremennogo menedzhmenta: slovar' upravlencheskogo revolyutsionera* [Key concepts for modern management: The Dictionary of the Management Revolutionary]. Moscow, Al'pina Biznes Buks Publ., 2007, p. 24.

Table 1**Description and advantages of sourcing maneuver models**

Model	Description	Strengths
1. Localization of product components manufactured by a joint venture	The customer assigns some of its departments for setting up a joint venture with its partner. Afterwards it delegates the component production to the joint venture but retains a part of the production process.	A decrease in corporate costs for maintenance of production facilities. Additional profit for the customer from its participation in the joint venture as much as a share in the authorized capital. Partial recovery of the loss of marginal profit from the product that arises from contracting out the component production. Optimal pricing for products of the joint venture
2. Setting up the joint venture through a subsidiary	The customer and its partner set up a joint venture on the basis of its own subsidiary and delegate the assembly of ultimate product to the joint venture. Product components are supplied to the joint venture from the customer and partner.	Competitive market price for products manufactured by the joint venture. Additional profit from the joint venture as much as a share in the authorized capital. Additional loading of production capacity of the entity and its subsidiary. Additional profit from the provision of the joint venture with components
3. Localization of components relative to the subsidiary's product	The customer spins off a department into the subsidiary and cooperates with it on the in-source basis, but retains a part of the production process.	Reduction in corporate expenditures for maintaining production facilities. The subsidiary becomes a supplier of components for other customers as well. Additional profit from the subsidiary's performance. Optimal pricing for the subsidiary's products
4. Localization of components of the third party's products	The customer delegates the production of a component to the third party supplier, but retains a part of the production process	Partial recovery of the loss of marginal profit from contracting out the component production. Optimal pricing for the third party supplier's products
5. Additional loading of production facilities through the delivery of outsourcing services	The customer acts as an outsourcer and arranges the production of components for other customers in its own production facilities	Additional profit. Reduction in corporate costs for maintaining idle production facilities

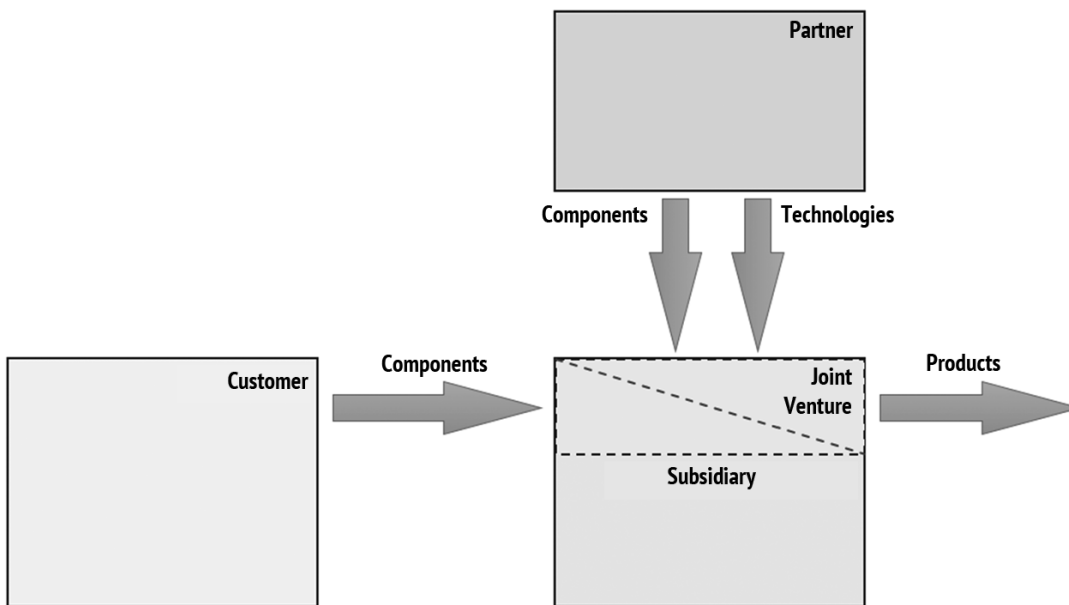
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Figure 1
Localization of components of the joint venture's products



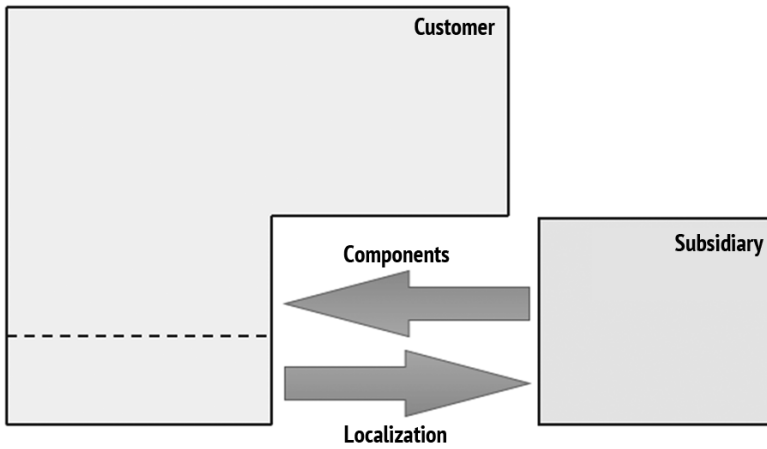
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Figure 2
Setting up the joint venture through a subsidiary



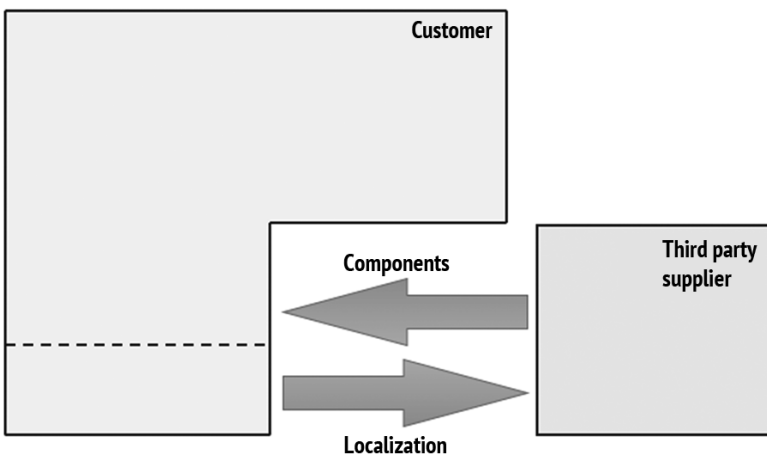
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Figure 3
Localization of components of the subsidiary's products



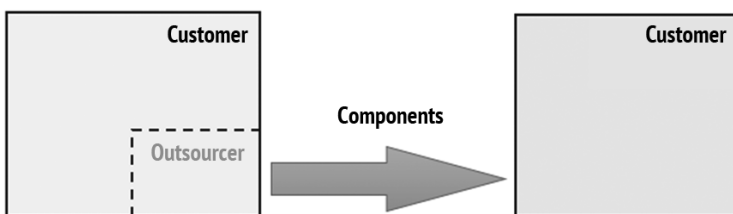
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Figure 4
Localization of component of the third-party supplier's products



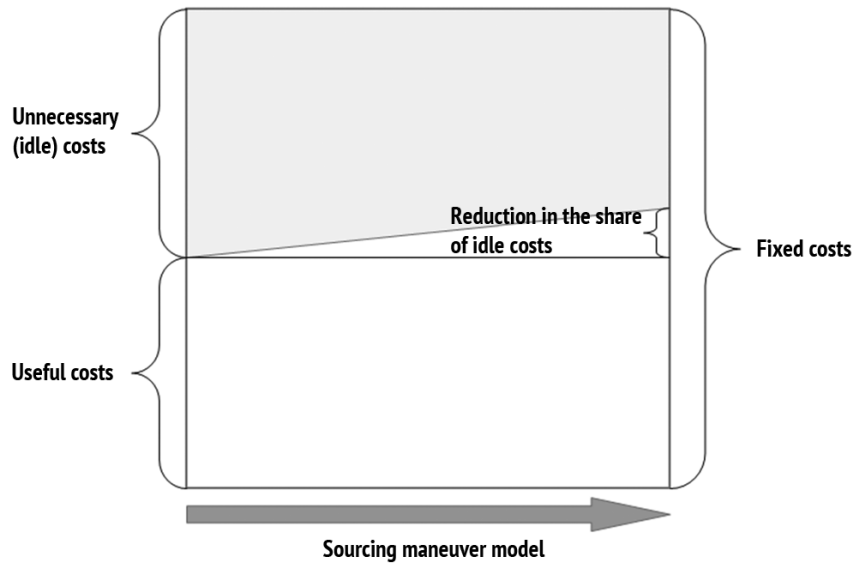
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Figure 5
Additional load to production sites through the delivery of outsourcing services



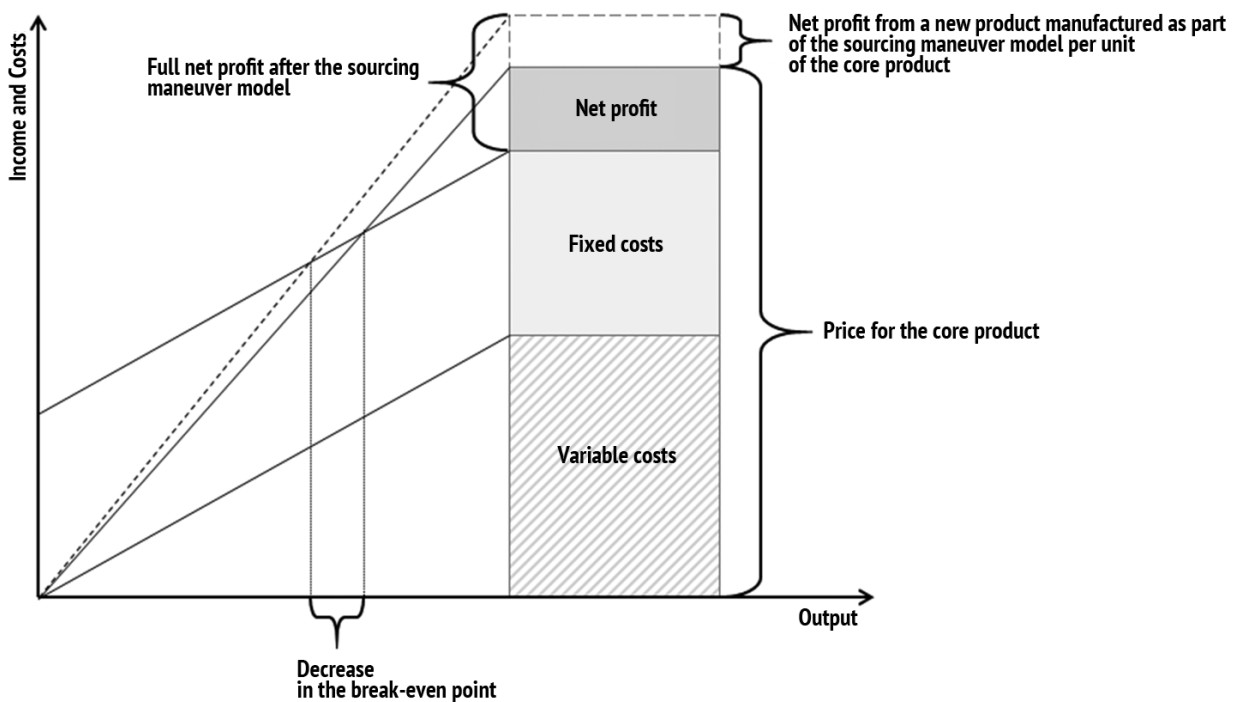
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Figure 6
Reduction in the share of idle costs within fixed costs



Source: Authoring

Figure 7
Decrease in the break-even point of the entity



Source: Authoring

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