The present article reveals the essence of the breakeven point, as an indicator of performance analysis. It also exposes its essence and its calculation formulas. A case study, presenting two companies as research object is carried out, where one company deals with natural gas distribution and delivery, and the other one is a baking factory.

Keywords: economic activity, breakeven point, performance, company, profit, sales, costs.

Introduction

Various economic goods, intended for sale on the market, are manufactured and provided as economic activities meant to satisfy certain needs in order to obtain certain profits, considering the subjective aspect of the individuals and the objective of the producers.

Thus, all the enterprises that carry out economic activities choose to obtain profit from carrying out economic activity and the size of which must be equal or greater than the optimal level, rendered by the optimal level of profitability. In this way, it is necessary to develop an economic activity so as expand the volume of activity in terms of effectiveness and efficiency. In order to be able to achieve these things, it is necessary to perform an analysis of the economic activity of the enterprise, to follow the current situation, to follow the achievements and to detect the reserves for improving the financial-economic situation or to improve the performance of the enterprise.

It is to be admitted, that the performance we opt for is a special result obtained in the economic, management, commercial field, which involves characteristics of competitiveness, efficiency and effectiveness of the organization and its procedural and structural components [1] or covers meanings of growth, effectiveness,
profitability, productivity, yield; it means success, competitiveness, success, action, continuous effort, it is the optimization of the present and the protection of the future.

Economic performance – is a result of a carrying out an efficient management, which aims the achievement of the highest possible levels, both quantitatively and qualitatively [2]. Depending on the performance importance we consider optimal for its analysis, from the multitude of economic indicators of analysis that of breakeven point.

**Basic content**

Breakeven point – is the volume of production or turnover, at which total revenues are equal to total costs and profit and profitability are zero [3]. The breakeven point determines the limit of the volume of activities, which is the critical production of the enterprise, which the enterprise must achieve in a certain period, in order not to run at a loss. After this level the specific economic activity of the enterprise is considered profitable, i.e. the effects exceed the efforts [4].

The level of the breakeven point is determined by the analytical and graphical method.

- *In analytical aspect* - the breakeven point is determined in natural expression and in value expression:

  1. **Natural expression of breakeven** – is calculated as the ratio between the total fixed costs and the average contribution margin of the analyzed product, is measured in physical production units and is determined by product \( Q_{Cn} \) – additional abbreviation encountered [4]:

     \[
     \text{BP} = \frac{FC}{ACM},
     \]

     where \( \text{BP or BP}_i \) indicates the breakeven point in natural expression of production \( “i” \), p.u.;

     \( FC \) - fixed expenses incurred for the total volume of production and realization of production \( “i” \), m.u.;

     \( ACM \) - average / unit contribution margin of the analyzed production \( “i” \), m.u./p.u.

  2. **Breakeven point in value expression** – is calculated as the ratio between the total fixed costs and the rate of contribution margin of the analyzed product or the company to sales, is determined by product and by enterprise and is measured in monetary units \( Q_{Cy} \) - additional abbreviation encountered [4]:

     \[
     2. \quad \text{Breakeven point in value expression} - \text{is calculated as the ratio between the total fixed costs and the rate of contribution margin of the analyzed product or the company to sales, is determined by product and by enterprise and is measured in monetary units} \rightarrow Q_{Cy} - \text{additional abbreviation encountered [4]};
     \]
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\[
BP = \frac{FC}{RMC} \times 100\% ,
\]

where \(PR\) - breakeven point in value expression, m.u.;

\(FC\) - total fixed costs, m.u.;

\(RMC\) - sales contribution margin rate, %.

– In graphical aspect – the breakeven point is represented on the coordinate system, where the revenues-RV and the total costs-TC, fixed costs-FC and the variable costs-VC are represented graphically and the main lines are those of total revenues and costs – the point from their intersection is the breakeven point \(BP\) or the “dead point”, overall the graph allows us to track performance achieved.

Next, we propose a performance analysis with the help of the proposed economic and financial indicator, namely that of breakeven point for the company “Bălți-Gaz” LLC, a natural gas distribution company from the Republic of Moldova and for the company “Franzeluța” JSC, a baking factory in Chisinau. From the total dynamics of activity of “Bălți-Gaz” LLC, the years 2012 and 2018 were taken, and for the enterprise “Franzeluța” JSC – the year 2018.

In table T.1 we propose the dynamics of the dead point in natural and value expression, in which we will reflect the initial information for determining the threshold and for each analytical method we propose the main elements of the calculation formula.

**Table T.1**

| Indicators | M.u. | Value of indicators company
<table>
<thead>
<tr>
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<th></th>
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<tbody>
<tr>
<td>---</td>
<td>---</td>
<td>„Bălți-Gaz” LLC</td>
</tr>
<tr>
<td>analysis years</td>
<td>2012</td>
<td>2018</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>1. Initial information for the dead point calculation:</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>1.1. physical volume of production mil m³</td>
<td>93.4</td>
</tr>
<tr>
<td>3</td>
<td>1.2. total revenue mil MDL</td>
<td>530.4</td>
</tr>
<tr>
<td>4</td>
<td>1.3. total fix cost mil MDL</td>
<td>87.8</td>
</tr>
<tr>
<td>5</td>
<td>1.4. total variable cost mil MDL</td>
<td>456.2</td>
</tr>
<tr>
<td>6</td>
<td>1.5. product price per unit MDL /m³</td>
<td>5,677</td>
</tr>
</tbody>
</table>
Analyzing table T.1, we see that in the year of activity 2012 the level of breakeven point in natural and value expression at “Bălţi-Gaz” LLC is higher than the total revenues, which shows that the company is at a loss, and in 2018 for both companies we see a opposite situation, there is profit.

In figure F.1, we propose the graph of the break-even point, following the situation of “Bălţi-Gaz” LLC for the year of activity 2012, through which we will be able to follow the graphic presentation technique of each element and to show more clearly the essence of the breakeven point.

It should be noted that in Figure F.1, the breakpoint reflects a situation when there is no profit-P available, because the BP is out of the physical volume of production, i.e. it is to the right of the line of physical volume manufactured-Q and above total revenues and costs. Respectively, the total costs are higher-544 than the revenues-530 and it is easy to argue graphically, because the TC line is above the RV line. So, in such a situation, the company does not have economic efficiency, the expected performance was not achieved and all because in the realization of the activity more efforts were supported, than they were made to achieve the goal.

Following figure F.1, we can see that graphically it is easy to follow the interdependence between sales volume and cost structure. Respectively, the graph shows that the break-even point will change if revenues change, expenditures change, the production volume of production placed on the enterprise market will change or revenues will change.
So, in order to improve performance, companies must reduce costs, pursue the optimal price level, depending on supply and demand, but also depending on the type of activity and the product that the company puts on the market. For example as in “Bălți-Gaz” LLC, their product is vital and necessary for the contemporary world and is imported and distributed to consumers, because the product is not intended for domestic production or, as “Franzeluța” JSC, which also puts specific production on market, respectively through their production their fields are perceived as strategic branches of the national economy.

**Conclusions**

In this way, we finished clarifying the economic indicator proposed in the analysis of the company's performance, through which we reproduced its essence and role, calculation and reflection methods. As we can see, the need for indicators to determine the “dead point” is not too high, we can say that the calculation of the breakeven point will not take long.

As mentioned, all companies tend to make a profit from economic activity and the size of which must be equal to or greater than the optimal level, rendered by the optimal profitability level. In this way, it is necessary to develop economic activity and expand the volume of activity in terms of effectiveness and efficiency.
In order to be able to achieve these things, it is necessary to perform and analysis of the company’s economic activity, to follow the current situation, to follow the achievements and to detect the reserves for improving the financial-economic situation or for improving the company’s performance.

The breakeven point determines the limit of the volume of activities, which is the critical production of the enterprise, which the enterprise must achieve in a certain period, in order not to run at a loss. After this level, the specific economic activity of the company is considered profitable, i.e. the effects exceed the efforts. The intersection point of total revenues and costs, shows the equality of the values of the main synthetic indicators, shows where the profit is zero, where it is growing and will ensure optimal efficiency to the enterprise, i.e. high level of profitability from economic activity. The essential factors influencing the breakeven are the change in the price of products on the market, the change in total costs according to the change in variable unit costs and the change in conventionally constant expenses, the change in the physical volume of production.

In conclusion, it should be noted that the indicator given by the activity indicators is of particular importance for top managers. That is why we consider optimal the application in the analysis of the economic activity, in the analysis of the company’s performance of the breakeven point.

References: