



Analysis of the effectiveness of the formation and distribution of financial results of business entities engaged in poultry farming

Begjanov Berdah Najimovich

Research Doctorate, Department of Economics, Karakalpak State University named after Berdah, Uzbekistan

Correspondence: E-mail: rberdakh.begjanov.78@mail.ru

ABSTRACT

The study of the effectiveness of the formation and distribution of financial results of entities engaged in poultry farming is a significant aspect of agricultural economics. It pertains to the efficiency of profit allocation and financial resource management in poultry farming businesses, an industry of paramount importance globally. In modern conditions, one of the growth points of the activities of any business entities specializing in poultry farming, such as business entities operating in all forms of ownership, is the main activity, which is primarily based on systematic planning of activities and strategic development courses based on the complex of all factors affecting it. is to determine. In particular, Economist V.A. Golovina emphasizes that in the effective planning of the financial results of business entities specializing in poultry farming and the assessment of the achievement of results according to the plan's indicators, the factor analysis system based on the gross profit, which is the net financial result of the main activity, and the factors affecting central importance. Economist Yu.G. And Onoprienko, in the general context, is in a consensus position regarding the opinions of the above economist, and in addition, he gave his opinion on the need to take into account all the factors affecting the gross profit to assess the level of impact of the main activity on the Net profit.

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1. INTRODUCTION

Factor analysis in poultry enterprises is one of the unique methods of assessing the real situation of financial result formation under the influence of external and internal factors and the possibilities of its optimization. The main feature of this method is a systematic approach to assessing the quantitative impact of each factor. In fact, with the help of factor analysis, performance indicators are divided into components, which are recognized in the system decomposition process of factor analysis. And on the contrary, in the opposite way, separate elements are directly combined into a general financial result. This process is recognized as analysis and synthesis in most literature.

The system of forming financial results in poultry farming, which serves as the basis for the factor analysis of financial results, is a complex process, which is influenced by many factors, including the type of poultry, the size of the operation, the cost of fodder and other products, and market prices (Simmons *et al.*, 2005).

The following are the main features of the formation of financial results in poultry farming:

- (i) Expenses related to operational, financial, and investment activities. Poultry farming is a capital-intensive business with high fixed costs such as land, buildings, and equipment. These fixed costs can be a significant burden on profitability, especially during periods of low market prices.
- (ii) Fluctuating market prices: Poultry product prices are volatile and can change significantly from year to year. Such volatility makes it difficult to plan for the future and can lead to financial losses if prices fall sharply.
- (iii) High risk of disease: Poultry is susceptible to many diseases that can cause huge financial losses. The risk of disease can be reduced by using biosecurity measures, but it can never be eliminated. Network development state policy and regulatory documents based on it. In particular, in the following years, to comprehensively support and develop the poultry industry in the Republic, to increase the volume of production of competitive products for domestic and foreign markets, and to provide mechanisms for a stable supply of poultry farms' demand for feed.

The decision of the President of the Republic of Uzbekistan No. PQ-281 of June 15, 2022, which was adopted to introduce, and attract large segments of the population to the industry and increase their legal culture, as well as to organize scientific and technical approaches and effective use of information technology in the network, poultry farming in the Republic Issues of further improvement of the targeted mechanism of state support have been expressed.

2. LITERATURE REVIEW

2.1. Profit Formation in Poultry Farming

Profit formation in the poultry farming industry has been studied in depth (MacDonald & Korb, 2011; Mishra *et al.*, 2005). These studies illuminate how profit generation in poultry farming is influenced by factors such as cost control, price fluctuations, management efficiency, and market conditions. The role of managerial decisions on profit formation, stressing the importance of cost-effective feed conversion, disease control, and optimizing hatchery operations. Mishra *et al.* (2005) highlighted the role of scale economies and technological advancements in improving profit formation.

2.2. Profit Distribution in Poultry Farming

Equally important to profit formation is the concept of profit distribution, where several scholars have analyzed the decision-making process and the effectiveness of various

distribution strategies (Roucan-Kane *et al.*, 2010). Roucan-Kane *et al.* (2010) addressed the decision-making process in distribution from a governance perspective, shedding light on how good corporate governance can enhance financial results.

2.3. Effectiveness of Financial Management in Poultry Farming

The effectiveness of financial management in poultry farming was evaluated in many studies (Darnhofer *et al.*, 2012; Hanson *et al.*, 2016). Darnhofer *et al.* (2012) focused on the role of risk management strategies, emphasizing their significance in maintaining a stable financial position. Hanson *et al.* (2016) highlighted the importance of financial ratios and benchmarking in evaluating the effectiveness of financial management.

2.4. Poultry Farming in Developing Economies

A considerable body of research has analyzed the profitability of poultry farming in developing economies (Akteruzzaman *et al.*, 2017). Akteruzzaman *et al.* (2017) indicated that small and medium enterprises (SMEs) engaged in poultry farming in developing economies face specific challenges like poor access to capital and low levels of technical knowledge, impacting their profitability. The role of government support and favorable policies in improving the financial results of these businesses.

3. METHOD

This article's objective is to analyze the effectiveness of the formation and distribution of financial results of business entities engaged in poultry farming. Along with utilizing the tool's benefits for their intended application, certain guidelines must also be followed. The authors have developed a theoretical model that takes into account both the experience of business entities and creative resources for the formation of financial results of business entities engaged in poultry farming. It required some time to investigate the current financial results of the farming and the effectiveness of the formation of the business entities. The process for analyzing the effectiveness of formation distribution of financial results of business entities engaged in poultry farming obtained results based on both empirical (such as observation, conversation, questioning, learning from the experiences of others and one's own, documentation, the expert evaluation method, testing, and others) and theoretical (such as studying the literature on the research topic, theoretical analysis, modeling, and others) methods, which are required to judge the reliability of empirical data.

4. RESULTS AND DISCUSSION

Figure 1 shows factors affecting the financial results of business entities engaged in poultry farming. Compared to the beginning and end of the analyzed period, the increase was 12.2 times. In addition, the cost of the realized product in 2017 was 337.3 million. amounted to 4,046.5 million soums, and by 2022 it will increase 12 times. reached soums. Gross profit in 2017 was 2.5 mln. 83.1 million soums by 2022. amounted to soums, and the growth rate compared to the beginning and end of the analyzed period was 33.2 times. Although there is a high growth rate of gross profit, its low share of net income means that the process related to the production of products on the farm depends on high costs. In particular, high costs have affected the low rate of gross profit. However, unlike "Bukhara Poultry" JSC, the main source of net profit in this enterprise is the gross profit of the "Sarabiy Parranda" farm.

The coefficient of profitability of realization calculated concerning gross profit (ROS (YaF)) at the farm "Sarabi Paranda" is 0.01 coefficient in 2017 and until 2022 it is 0.02 coefficient

with a description of chaotic fluctuations. In "Bukhara Poultry" JSC, this coefficient (ROS (YaF)) was 0.09 in 2017, and until 2022 it was 0.27, showing a chaotic fluctuation in this enterprise and showing a relatively high growth trend.

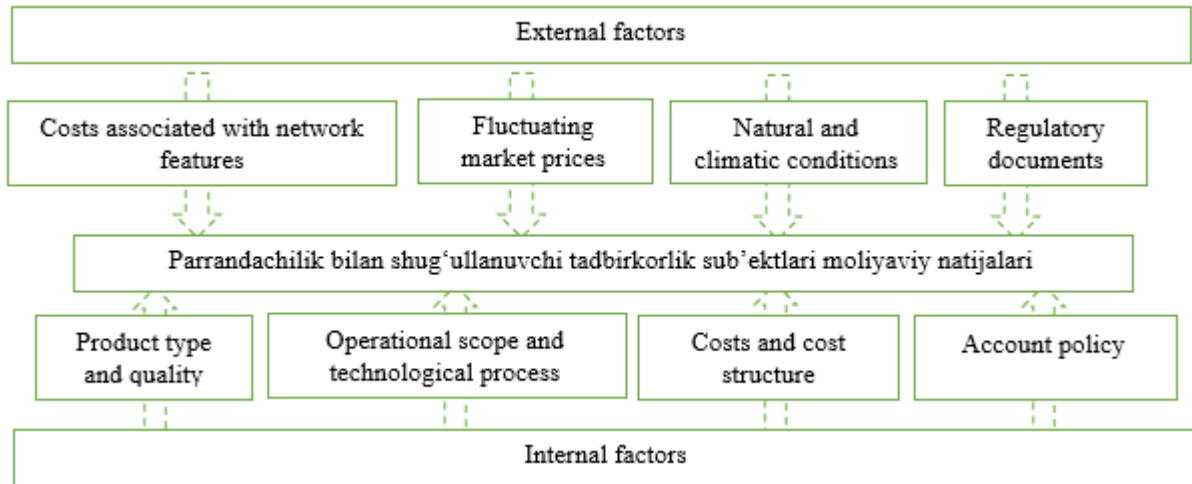


Figure 1. Factors affecting the financial results of business entities engaged in poultry farming.

The characteristic aspects of network development based on the above factors have an impact on the formation of financial results of business entities, and we can comprehensively divide them into 2 main groups. It can be seen from **Figure 1** that the factors affecting the net financial result generated by the formation and distribution of the financial results of business entities engaged in poultry farming can be classified according to external and internal factors (**Table 1**).

Table 1. Dynamic analysis of financial results of the main activity of "Sarabi poultry" farm and "Bukhara poultry" JSC, mln. Soum.

| Indicators/ years | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2022 йилда Increase compared to 2017, times |
|-------------------------------------|----------|----------|----------|---------|----------|----------|--|
| "Sarabi Paranda" farm | | | | | | | |
| Net proceeds from product sales, Sg | 339.80 | 108.60 | 168.70 | 291.60 | 214.30 | 4 129.60 | 12.2 |
| Cost of goods sold, C | 337.30 | 56.80 | 140.00 | 232.90 | 174.10 | 4 046.50 | 12.0 |
| Gross profit, Pg, (Xi) | 2.50 | 51.80 | 28.70 | 58.60 | 40.20 | 83.10 | 33.2 |
| ROS | 0.01 | 0.48 | 0.17 | 0.20 | 0.19 | 0.02 | |
| JSC "Bukhara Poultry" | | | | | | | |
| Net proceeds from product sales, Sg | 23625.30 | 27598.90 | 28841.70 | 3369.90 | 15502.10 | 7 755.10 | 0.33 |
| Cost of goods sold, C | 21531.30 | 25375.80 | 25653.90 | 2092.70 | 10418.90 | 5 629.80 | 0.26 |
| Gross profit, Pg, (Xi) | 2094.30 | 22231.00 | 3187.80 | 1277.20 | 3083.10 | 2125.20 | 1.01 |
| ROS) | 0.09 | 0.81 | 0.11 | 0.38 | 0.20 | 0.27 | |

It is known that gross profit embodies the net financial result of the main activity of business entities of any form of ownership, and its share in the net income depends primarily on the market price of the products produced by the main activity and the strategy of the sales policy. Also, according to the economist D.K. Shim, the formation of gross profit depends on the nominal value of the direct cost expenses under the influence of the technological structure of the production process of the main activity. If we analyze the situation for the years 2017-2022 in the case of the analyzed "Sarabiy Poultry" farm, it is confirmed that there is a high share of cost expenses in the composition of the total income. In particular, the share of these expenses in the total income during the analyzed period is a minimum of 79.9% (in 2020) maximum of 99.3% (in 2017) hovering in the percentile range. In 2022, these costs will reach 98.0% and show a growing trend (**Table 2**).

Table 2. Structural and dynamic analysis of income from product sales of "Sarabi poultry" farm and "Bukhara poultry" JSC, as a percentage of the total.

| Indicators/years | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---------------------------------------|------|------|------|------|------|------|
| "Sarabi Paranda" farm | | | | | | |
| Net income from product sales | 100 | 100 | 100 | 100 | 100 | 100 |
| Реализация қилинган маҳсулот таннархи | 99.3 | 52.3 | 83.0 | 79.9 | 81.2 | 98.0 |
| Gross profit | 0.7 | 47.7 | 17.0 | 20.1 | 18.8 | 2.0 |
| JSC "Bukhara Poultry". | | | | | | |
| Net income from product sales | 100 | 100 | 100 | 100 | 100 | 100 |
| Реализация қилинган маҳсулот таннархи | 91.1 | 91.9 | 88.9 | 62.1 | 67.2 | 72.6 |
| Gross profit | 8.9 | 80.6 | 11.1 | 37.9 | 19.9 | 27.4 |

In "Bukhara Poultry" JSC, the share of costs in net income is min. 62.1% (in 2020) to max. hovering in the 91.1% (in 2017) range. The mass of profit in net income constitutes a relatively high share in "Bukhara Poultry" JSC, providing an average market level. Although the gross profit is the main source of the net profit of both poultry business entities under analysis, to assess the risk of maintaining the level of profit and the required provision of the profitability calculated concerning the net profit, we calculate the dispersion and standard deviation of the gross profit based on the retrospective database in **Table 2**. In particular, based on 6-year data, the dispersion based on 6-year data at the "Sarabi Poultry" farm is expressed in the following Equation [1].

$$\bar{\sigma}^2 = \frac{\sum_{n=1}^6 (X - \bar{X})^2}{n} = 705,67; \quad \sigma = \sqrt{\frac{\sum_{n=1}^6 (X - \bar{X})^2}{n}} = 26,56 \quad (1)$$

Therefor, the dispersion value of the gross profit ($\bar{\sigma}^2$) at the "Sarabi Poultry" farm is 705.67 mln. indicates that the degree of deviation is high, amounting to soum. The standard deviation calculated concerning the average figure is 27.47 million soums. From this, it can be concluded that the fluctuation amplitude of the gross profit in the analyzed period is very high, and the risk of setting the required nominal value of the gross profit and ensuring it in the future is high. This indicator is even higher in "Bukhara Poultry" JSC (see Equation 2).

$$\bar{\sigma}^2 = \frac{\sum_{n=1}^6 (X - \bar{X})^2}{n} = 754,69; \quad \sigma = \sqrt{\frac{\sum_{n=1}^6 (X - \bar{X})^2}{n}} = 27,47 \quad (2)$$

The dispersion value of gross profit in a joint-stock company ($\bar{\sigma}^2$) is 705.67 mln. made up soum. The standard deviation calculated concerning the average indicator is 27.47 million. amounts to soum. But if we base it on the fact that the nominal value of the gross profit in this "Bukhara Poultry" JSC is too high compared to the "Sarabi Poultry" farm, we can be sure that the gross profit is relatively evenly distributed.

The above analysis can be systematized into the following main conclusions:

- (i) The investment capacities of business entities specializing in poultry farming based on different forms of ownership serve as the main influencing factor on the effectiveness of the formation of financial results. In particular, although the policy of production and sale of products at the "Sarabi Paranda" farm has seen a sharp increase in 2021-22, high-cost expenses lead to a low indicator of the calculated profit mass concerning the gross profit. This situation does not create a basis for improving profitability in the conditions of a high rate of business activity, and the low level of accumulation of internal financial reserves leads to the closing of opportunities for the formation of investment reserves for the modernization of the farm. However, the main source of net profit in the "Sarabi Poultry" farm, in contrast to "Bukhara Poultry" JSC, is gross profit.
- (ii) There are opportunities for cost savings at the expense of internal and external factors affecting the maximization of gross profit in the "Sarabi Poultry" farm. This, in turn, can be realized through technological modernization of product production in return for attracting investment resources from the domestic and financial markets, cost savings, and increased gross profit mass as a result of lowering the market price of purchased feed products through state regulation.

If in the section of the above conclusions, in the section of factors affecting the formation of financial results, a decision is made on the comprehensive assessment of the capabilities of each poultry farm, we can refer to the system of factor analysis of the formation of profit. To do this, first of all, we will systematize the dynamic analysis of the annual change of the above financial performance indicators based on **Table 3**.

From the data of **Table 3**, it can be seen that in 2018, compared to 2017, the "Sarabi Paranda" farm had a nominal amount of net income ($\Delta Sg = -231,20$ million soums) and costs ($\Delta C = -280,50$ million soums) a decrease in dynamic change was observed. However, the annual change of gross profit (ΔPg) showed a positive nominal growth trend and reached 49.3 mln. made up soums. The annual decrease in these dynamic changes was also observed in 2021 in all indicators ($\Delta Sg = -77,3$ mln. soums; $\Delta C = -58,8$ mln. soums; $\Delta Pg = -18,4$ mln. soums). By 2022 and high nominal indicators are recorded in annual changes.

Table 3. "Sarabi Parranda" farm and "Bukhara Parranda" JSC main activity financial results dynamics of annual change, mln. in sum.

| Indicators/years | 2018 | 2019 | 2020 | 2021 | 2022 |
|------------------------------|----------|-----------|-----------|----------|----------|
| "Sarabi Paranda" farm | | | | | |
| ΔSg | -231.20 | 60.10 | 122.90 | -77.30 | 3915.30 |
| ΔC | -280.50 | 83.20 | 92.90 | -58.80 | 3872.40 |
| ΔPg | 49.30 | -23.10 | 29.90 | -18.40 | 42.90 |
| JSC "Bukhara Poultry" | | | | | |
| ΔSg | 3973.60 | 1242.80 | -25471.80 | 12132.20 | -7747.00 |
| ΔC | 3844.50 | 278.10 | -23561.20 | 8326.20 | -4789.10 |
| ΔPg | 20136.70 | -19043.20 | -1 910.60 | 1805.90 | -957.90 |

In the analyzed "Bukhara Poultry" JSC, the decrease in the annual nominal value of gross profit in 2019 ($\Delta Pg = -19043.2$ million soums), in 2020 ($\Delta Pg = -1910.6$ million soums), and 2022 ($\Delta Pg = -957.9$ million soums) was observed. In 2020 and 2022, there was a decrease in all analyzed financial results. In general, it can be noted that although the indicator of business activity of JSC "Bukhara Poultry" is high, the net income, cost, and gross profit indicators are decreasing in the following years.

Based on the above, if we consider the analysis of factors affecting gross profit, we will see the following picture:

- i) Using the chain analysis method, the cost in the base period is deducted from the net income received in the reporting year without changing:

$$F(Pg)=Sg(2022)-C(2021)=4129,6-174,1=3955,5 \text{ million. Soum.}$$

- ii) The calculation of the change in gross profit under the influence of net income is carried out as follows.

$$F(\Delta Sg)=F(Pg)-Pg(2021)=3955,5-40,20=3915,3 \text{ million. Soum}$$

- iii) It is possible to calculate the impact of changes in cost expenses on gross profit:

$$F(\Delta C)=Pg(2021)-F(Pg)=83,1-3955,5=-3872,$$

- iv) We can check the correctness of these actions as follows:

$$\Delta Pg= F(\Delta Sg)+ F(\Delta C)= 3915,3 \text{ million. soum. } -3872,4 \text{ million. soum. } = 42,9 \text{ million. soum.}$$

Therefor, it can be concluded that the annual growth of the net income of the "Sarabi Poultry" farm will increase the gross profit to 3915 mln. affected the growth of the soum. The annual growth of costs and expenses will increase the gross profit by 3872 mln. affected the annual decrease of soum. If we analyze the sources of the formation of the net profit, which is the net financial result of the business entity engaged in poultry farming, we can witness the following picture.

5. CONCLUSION

The existing literature paints a complex picture of the financial management of businesses engaged in poultry farming. Research has shed light on numerous aspects, including the intricacies of profit formation, the complexities of profit distribution, the effectiveness of financial management, and the challenges faced by the industry, especially in developing economies. However, more research is needed to delve deeper into these areas, especially considering the dynamism of the global economic landscape and the growing sustainability concerns affecting the industry.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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