

INNOVATION SCIENCE AND TECHNOLOGY



Scopus || Electronic journal specializing in Scopus

ISSUE 6

 Acceptance of papers June, 2025



Acceptance of papers

Published monthly



Topics

economics, technology, social sciences



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THE SCIENTIFIC-POPULAR ELECTRONIC
JOURNAL **"INNOVATION SCIENCE AND
TECHNOLOGY"** HAS BEEN REGISTERED
UNDER THE NUMBER **C-5669633** BY THE
AGENCY FOR INFORMATION AND MASS
COMMUNICATIONS (AOKA) OF THE
REPUBLIC OF UZBEKISTAN, EFFECTIVE
FROM OCTOBER 9, 2024.

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The scientific electronic journal "Innovation Science and Technology" has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.

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TRADITIONAL METHODS OF ASSESSING THE EFFECTIVENESS OF WOMEN'S ENTREPRENEURSHIP

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Abstract: This scientific article discusses the theoretical and practical aspects of using traditional economic analysis methods to assess the effectiveness of women's entrepreneurship. The article evaluates the overall effectiveness of women's entrepreneurial entities in Uzbekistan, in particular, on the example of the Samarkand region, based on economic and analytical methods. The results of the analysis substantiate the importance of a systematic and indicator approach to the analysis of women's entrepreneurship and allow for comparative analysis in this area, both regionally and over time.

Key words: women's entrepreneurship, efficiency, labor productivity, labor resources, economic analysis, traditional valuation methods, gender economics, business entities, number of employees, profitability, dynamic analysis, innovative entrepreneurship, product volume.

INTRODUCTION

In today's globalized and competitive economy, one of the important factors of a country's economic development is the sustainable growth of the services sector and the effective operation of business entities in it. In particular, women's entrepreneurship plays a significant role in this area. They play an important role not only in revitalizing economic activity, but also in ensuring employment, developing social equality, and increasing family well-being.

In recent years, Uzbekistan has been strengthening its state policy to increase the economic activity of women and support their entrepreneurial initiatives. This has led to an increase in the number of business entities with women's participation, an increase in the share of employed women in the service sector. However, the need for a systematic assessment of the effectiveness of women's entrepreneurship, identification and analysis of existing opportunities and limitations remains urgent. In this regard, it is proposed to use a system of indicators based on labor resources - labor productivity of employees and the level of provision of business entities with labor resources - in addition to traditional profitability and productivity indicators, to measure the effectiveness of women's entrepreneurship. This approach is of significant scientific and practical importance in comparing the effectiveness of women's entrepreneurship across regions, identifying internal reserves and developing development strategies.

This article analyzes the theoretical foundations of assessing the effectiveness of women's entrepreneurship, critically reviews existing approaches, and develops an assessment methodology using a complex labor-based indicator - ATUSK (Women's Entrepreneurship Overall Efficiency Indicator). The object of the study is the analysis of statistical data for 2023–2024 in the Samarkand region.

ANALYSIS OF LITERATURE ON THE TOPIC

The assessment of the effectiveness of entrepreneurial activity is becoming one of the important areas of economic analysis today. Especially in the study of women's entrepreneurship, the need to analyze effectiveness based on a comprehensive approach is increasing. P. Drucker interprets effectiveness as "doing the right things" and emphasizes that this concept plays a key role in improving management efficiency.¹ For service-based businesses, particularly women-led businesses, efficiency is measured not only in terms of economic but also social performance. Sankaran R. defines productivity as achieving maximum output with minimum resources. He suggests ways to improve enterprise efficiency through digital transformation and human resource competitiveness.² This approach is relevant for women's entrepreneurship, which has a high employment rate in the service sector.

1 Drucker, P. (2006). *The Effective Executive*. HarperBusiness.

2 Sankaran, R. (2021). Efficiency in Service Enterprises: Labor and Digitalization. *Journal of Operations Management*.

The development of the service sector in Uzbekistan, the efficient use of resources and optimization of the cost of services have been studied in a number of scientific studies. The approaches developed by Mirzayev QJ and others emphasize the importance of specific and general indicators in determining efficiency. In particular, the relationship between labor productivity and the level of resource utilization is considered the main determining factors³. In particular, in women's entrepreneurship, the calculation of the general efficiency indicator (GEI) through two main indicators related to labor resources - labor productivity (LP) and labor resource availability (LRE) - is being proposed as a highly accurate model in practice. The system of these indicators is analyzed using the recalculation method, which is part of the classical methods of economic analysis.⁴ Muhammadamin Erdonov, in his analytical work on women's entrepreneurship, emphasized that it is necessary to pay attention to labor resources when determining the efficiency of resource use across regions. He points to the ratio between the average number of workers and the volume of products created in the services sector as the main indicator.⁵

RESEARCH METHODOLOGY

The research process used indicator analysis, dynamic analysis, grouping, comparison, factor analysis, and comparative analysis methods.

ANALYSIS AND RESULTS

Any action is carried out to achieve a certain result. Certain results are expected from any activity carried out by an enterprise. What is efficiency or effectiveness?

An effect is a result, outcome, or benefit.

It follows that the effect is the result obtained from any event that occurs.

The term "efficiency" refers to the highest level of performance that uses the least amount of inputs to achieve the highest amount of output.

Efficiency requires reducing the number of unnecessary resources used to produce a given product, including personal time and energy.

Efficiency is a measurable concept that can be defined as the ratio of useful output to total input. High efficiency minimizes the waste of resources such as physical materials, energy, and time, while achieving the desired result.⁶

If we give an additional definition of efficiency, then efficiency can be assessed as the level of dynamic change in the obtained result and the average level of effectiveness.⁷

Private and general indicators are used to assess the effectiveness of an enterprise's activities.

Specific indicators may include:

- efficiency of use of each type of resource;
- the efficiency of selling each type of product (service) at the enterprise.

General indicators include:

- the efficiency of all resources and products of the enterprise;
- overall efficiency of the enterprise's operations.

The procedure for assessing the effectiveness of an enterprise's activities is carried out in several stages.

Stage 1. General indicators of profitability reflecting the efficiency of the enterprise's production activities are calculated and assessed.

- Sales profitability – refers to the share of net profit in sales revenue.
- Return on sales – refers to the efficiency of selling a product.

Stage 2. Profitability indicators are calculated and evaluated, indicating the efficiency of resource use in the enterprise.

- Working capital profitability – refers to the efficiency of a company's use of its working capital.
- Return on equity – refers to the efficiency of a company's use of its equity capital.
- Return on invested capital – refers to the efficiency of the funds invested in the activities of the enterprise.
- Return on borrowed capital – refers to the efficiency of a company's use of borrowed funds.

3 Mirzayev, QJ, Sharipov, TS, Fayziyev, ES (2022). Economics of the Service Sector. Textbook. Tashkent: Economics and Services.

4 Naimova, NA (2024). Criteria for assessing the efficiency of using economic resources in service enterprises. *Gospodarka i Innowacje*.

5 Erdonov, M. (2023). Indicators for analyzing labor resource efficiency in women's entrepreneurship. *Green Economy and Development*.

6 Carvalho, Thiago P., et al. "A systematic literature review of machine learning methods applied to predictive maintenance." *Computers & Industrial Engineering*, Vol. 137. 2019, 106024.

7 Elijah, Olakunle, et al. "An overview of Internet of Things (IoT) and data analytics in agriculture: Benefits and challenges." *IEEE Internet of Things Journal*, Vol. 5, No. 5. 2018, pp. 3758-3773

Stage 3. A factor analysis of profitability indicators is conducted.

The goal is to identify the reasons for deviations of actual indicators from baseline indicators and plan indicators.

Stage 4. Specific performance indicators reflecting individual aspects of the enterprise's activities are calculated and evaluated. These may include:

- cost capacity of products;
- the cost of production and the level of wages per employee;
- the weight of cost elements in the product cost structure, etc.

It was considered that each measure would be effective if the effectiveness of women's entrepreneurship was assessed using the overall effectiveness indicator of women's entrepreneurship, in addition to the indicators listed above.

It was recommended that the overall efficiency index of women's entrepreneurship in relation to labor resources be determined as follows.

$$ATUSK = MU * MRBT_{(1)}^8$$

ATUSK – Overall performance indicator of women's entrepreneurship;

MU – Productivity of women entrepreneurs;

MRBT – Providing women's entrepreneurship with labor resources.

The labor productivity of women entrepreneurs is determined as follows:

$$MU = \frac{ATTM}{ATBAO'XS}$$

MU – Labor productivity of women entrepreneurs;

ATTM – Volume of products (works, services) produced through women's entrepreneurship;

ATBAO'XS – Average number of employees employed in women's entrepreneurship.

Here, the labor productivity of employees in women's entrepreneurship expresses how much product (work, service) is created by an average employee in women's entrepreneurship.

Related to labor resources in women's entrepreneurship Another important indicator is the level of labor resources available to women's entrepreneurship.

$$MRBT = \frac{ATBAO'XS}{ATBKS}$$

MRBT – Providing women's entrepreneurship with labor resources;

ATBAO'XS – Average number of employees employed in women's entrepreneurship;

ATBKS – Number of women-owned businesses;

This indicator represents the average number of employees employed in each of the women-owned businesses.

The two indicators above, the first one represents the labor productivity of employees, and the second one represents the average number of employees working in one women-owned enterprise. By rounding these two indicators, an overall efficiency indicator related to labor resources in women-owned enterprises was developed.

This labor productivity indicator expresses how many products (works, services) are created in women's entrepreneurship with an average number of employees and average labor productivity. This indicator is used to compare the productivity indicators of women's entrepreneurship by region.

This indicator can be used not only to compare women's entrepreneurship across regions, but also to dynamically analyze this indicator within a region.

This necessarily involves the use of traditional methods used in economic analysis. When two factors affect the result and these factors are functionally related, the recalculation method is used from traditional methods used in economic analysis.

8 Author's development

The technology for applying the recalculation method is carried out in the following sequence. First, the value of the result in the base period is subtracted from the current value of the result:

$$\Delta ATUSK_{difference} = ATUSK_{current} - ATUSK_{basis}$$

Second, the result is recalculated with the current value of the first factor and the base value of the second factor:

$$\Delta ATUSK_{recalculated} = MU_{current} * MRBT_{basis}$$

Third, the effect of the first factor on the result is determined by subtracting the result in the base period from the recalculated result.

$$\Delta ATUSK_{MU} = MU_{current} * MRBT_{basis} - MU_{basis} * MRBT_{basis}$$

Fourth, the effect of the second factor on the outcome is determined by subtracting the recalculated amount of the outcome from the actual amount of the outcome.

$$\Delta ATUSK_{MRBT} = MU_{current} * MRBT_{current} - MU_{current} * MRBT_{basis}$$

Fifth, it is checked whether the effects of factors have been calculated correctly.

$$\Delta ATUSK_{recalculated} = \Delta ATUSK_{MU} + \Delta ATUSK_{MRBT}$$

The object of the study was the socio-economic relations related to women's entrepreneurship in the Samarkand region and their results, so the situation in the Samarkand region was studied.

The study yielded the following results:

Table 1. Indicators related to women's entrepreneurship in Samarkand region in 2023-2024

No.	Indicators	2023	2024
1	Volume of products (works, services) produced by women's entrepreneurship (in thousand soums)	972 813 090.00	1,089,550,660.80
2	Number of businesses started by women	5 853,00	6 312.00
3	Number of employees employed in women's entrepreneurship	29265	44184
4	Labor productivity of women entrepreneurs	33,241.52	24,659.39
5	Providing women's entrepreneurship with labor resources	5	7
6	Overall performance index of women's entrepreneurship	166 207.60	172,615.76

When analyzing the overall efficiency of women's entrepreneurship in terms of labor resources in the Samarkand region in 2023-2024 using traditional methods of economic analysis, the following results were obtained.

First, the value of the result in the base period is subtracted from the current value of the result:

$$\Delta ATUSK_{differece} = ATUSK_{current} - ATUSK_{basis} = 172\ 615,76 - 166\ 207,6 = 6\ 408,1$$

From the results obtained, it can be seen that the overall efficiency level of women's entrepreneurship in terms of labor resources in Samarkand region in 2024 compared to 2023 is 6,408, increased by 1 thousand soums.

Second, the result was recalculated with the current value of the first factor and the base value of the second factor:

$$\Delta ATUSK_{recalculated} = MU_{current} * MRBT_{basis} = 24\ 659,39 * 5 = 123\ 297,0$$

It follows that women-founded businesses in Samarkand region will have a labor productivity of 123,297 employees in 2024 and an average number of employees in 2023. It can create an average product (work, service) worth .0 thousand soums.

Third, the impact of the first factor on the outcome was determined by subtracting the baseline outcome from the recalculated outcome.

$$\Delta ATUSK_{MU} = MU_{ccurrent} * MRBT_{basis} - MU_{basis} * MRBT_{basis} = 123\ 297,0 - 166\ 207,6 = -42\ 910,6$$

The calculations show that in Samarkand region, labor productivity will increase by 8,582% in 2024 compared to 2023. As a result of the decrease by .13 thousand soums, the overall efficiency decreased by 42,910.6 thousand soums.

Fourth, the effect of the second factor on the outcome was determined by subtracting the recalculated amount of the outcome from the actual amount of the outcome.

$$\Delta ATUSK_{MRBT} = MU_{current} * MRBT_{current} - MU_{current} * MRBT_{basis} = 172\,615,76 - 123\,297,0 = 49\,318,7$$

The results of the study show that the increase in the average number of employees in women's entrepreneurship entities in Samarkand region in 2024 compared to 2023 by two people increased the overall efficiency level by 49,318.7 thousand soums.

Fifth, it is checked whether the effects of factors have been calculated correctly.

$$\Delta ATUSK_{difference} = \Delta ATUSK_{MU} + \Delta ATUSK_{MRBT} = -42\,910,6 + 49\,318,7 = 6\,408,1$$

From the results obtained, it can be seen that the influence of factors on the overall level of productivity in women's entrepreneurship in the Samarkand region was correctly calculated.

In women's entrepreneurship entities in the Samarkand region, the overall efficiency level has a tendency to increase in 2023-2024, however, labor productivity has decreased, and as a result of the tendency to increase the average number of employees, the loss in labor productivity is being compensated.

It was determined that if labor productivity in the Samarkand region is maintained at the level of 2023, the overall efficiency level of women's entrepreneurship in the Samarkand region can be increased by 49,318.7 thousand soums and the overall efficiency level can be increased to 221,934.55 thousand soums.

CONCLUSION AND SUGGESTIONS

The issue of assessing the effectiveness of women's entrepreneurship is gaining relevance in today's economic environment. This study effectively uses traditional economic analysis methods to assess the effectiveness of women's entrepreneurship entities in the Samarkand region based on their activities. In particular, it was substantiated that it is possible to conduct a comparative and dynamic analysis using the Women's Entrepreneurship Overall Efficiency Index (WEEI), which was developed based on indicators related to labor resources - labor productivity and the level of staffing.

The results of the analysis show that, although the overall efficiency of women's entrepreneurship in Samarkand region in 2023-2024 had a growing trend, this was mainly due to an increase in the number of employees. However, the decrease in labor productivity indicates that internal resources are not being used effectively enough in women's business entities. Therefore, increasing labor efficiency in business entities, implementing digital transformation, developing a qualified workforce, and improving the quality of services are identified as key areas.

The results of the study indicate the need to standardize the system of indicators for assessing women's entrepreneurship at the national level and to form a regular monitoring mechanism. This approach will increase the ability to make strategic decisions across regions and sectors.

The results of the study show that traditional economic analysis methods, in particular indicators based on labor resources, play a key role in assessing the effectiveness of women's entrepreneurship. Based on the analysis conducted on the example of the Samarkand region, the following proposals and recommendations were developed:

Systematic use of the ATUSK indicator in assessing women's entrepreneurship is proposed. Based on this indicator, it will be possible to identify regional, sectoral and temporal differences.

Development of targeted programs to increase labor productivity is necessary. The main directions in this should be improving the skills of employees, expanding the scope of innovative services, and working on the quality of services.

Implementing digital transformation in businesses There is an opportunity to increase the efficiency of resource use through. This is especially important in the services sector.

Standardization of the system of indicators for assessing women's entrepreneurship at the republic level. Based on this approach, a sustainable monitoring and analysis system will be created in all regions.

Development of a labor resource optimization policy It optimizes the ratio between the number of employees and the volume of production and prevents overemployment.

Creating and constantly updating a database on women's entrepreneurship at the regional level. This simplifies statistical analyses and provides a basis for planning.

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Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2025. № 6

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