

## THE SIGNIFICANCE OF STATISTICAL OBSERVATION IN ECONOMIC SYSTEMS

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**Annotation:** The main purpose of this article is to gain a comprehensive understanding of what statistical observation is, and to study the crucial aspects of implementing statistical observation in the key sectors of the economy—such as banking and finance, microeconomic indicators, and accounting systems—where it plays a vital role.

**Keywords:** economy, statistical observation, banking system, financial system, microeconomic indicators, accounting.

### **Introduction:**

Indeed, every field within the sphere of economics relies on statistics. Through statistical analyses, it becomes possible to identify shortcomings or successes in the workflow and to make forecasts for the coming years.

First, let us consider the concept of *statistical observation*. Statistical observation allows for the collection of large amounts of data about a studied phenomenon; however, due to the scattered nature of this data, it does not immediately enable comprehensive conclusions. Therefore, systematizing and processing this data becomes the next important step.

Statistical observation can be defined as the process of collecting primary data about social, economic, natural, or other phenomena and processes. This process represents the first and most crucial stage of statistical analysis, as all subsequent calculations, evaluations, and conclusions are based on these collected data. Simply put, statistical observation is the process of collecting, recording, and preparing data for analysis.

The main objective of statistical observation is to provide complete and reliable information about the phenomenon being studied. Examples include studying population size

and composition, determining enterprise production volumes, monitoring market price changes, and examining unemployment levels.

#### Main Functions of Statistical Observation:

- Collecting accurate, complete, and reliable information about events and processes;
- Correctly recording and systematizing data;
- Calculating statistical indicators based on collected data;
- Preventing and controlling errors during the observation process.

#### Stages of Statistical Observation:

1. Preparation Stage: developing the observation program and plan, identifying objects and units, and determining the form of data collection;
2. Data Collection Stage: directly collecting data about the phenomena and processes;
3. Verification and Processing Stage: preparing the obtained data for analysis, identifying and correcting errors.

Statistical observation can be classified according to different criteria:

- By coverage: complete and sample (partial) observation;
- By frequency: one-time, periodic, and continuous observation;
- By method: documentary, survey-based, and experimental observation.

A statistical observation program includes the organization of the observation process, preparation of workforce, defining timeframes and responsibilities, and establishing control procedures. In practice, random, systematic, intentional, or false-reporting errors may occur. Examples include the census conducted by the State Committee on Statistics of the Republic of Uzbekistan, sampling surveys for price index calculation in a market economy, and enterprise-level production and employment reports.

Therefore, statistical observation is the primary stage of any scientific or practical research, enabling in-depth study and analysis of socio-economic processes. Properly organized observation results play an essential role in decision-making, planning, and implementing socio-economic reforms.

#### The Role of Statistical Observation in the Banking System:

In the banking sector, statistical observation refers to the systematic collection, analysis, and summarization of primary data regarding the activities of commercial banks, the Central Bank, and other financial institutions. These data include information on credit volumes and types, deposit amounts, bank assets and liabilities, liquidity, profit and loss indicators, and payment system operations. Such data are crucial for forming banking policies, assessing risks, and developing economic forecasts.

Main objectives of statistical observation in the banking system:

- To analyze financial institutions' performance systematically and make data-driven managerial decisions;
- To monitor the condition of the banking system;
- To track changes in credit and deposit markets;
- To control the circulation of money and cash in the economy;
- To evaluate the impact of interest rate and exchange rate policies;
- To determine banking risks and liquidity levels;
- To ensure financial stability in the national economy.

Practical importance of statistical observation in banking includes:

1. Ensuring financial stability – determining the real condition of the banking system, liquidity levels, credit portfolio quality, and clients' solvency;
2. Developing credit policy – optimizing interest rates and minimizing risks through credit analysis;
3. Managing inflation and monetary circulation – statistical data on money supply and deposits serve as the main source for monetary policy;
4. Encouraging investment activity – tracking investment flows through banks helps identify active sectors of the economy;
5. Providing a basis for international analysis and ratings – international institutions such as the IMF, World Bank, and rating agencies (Fitch, Moody's) use these statistics to assess a country's credit rating.

Hence, statistical observation in the banking system is not merely data collection, but a scientific foundation for financial management, risk assessment, and economic policymaking.

Statistical Observation in the System of Microeconomic Indicators:

Another vital area of the economy where statistical observation plays a key role is the system of microeconomic indicators. This involves studying, analyzing, and evaluating the performance of enterprises, organizations, or individual economic units.

Micro-level statistical observations help determine production volume, cost, labor productivity, profit, profitability, expenses, and other indicators. These data serve as a foundation for evaluating the economic efficiency of enterprises and for making managerial decisions.

Microeconomic indicators are quantitative measures that reflect the production, distribution, exchange, and consumption processes of enterprises and economic entities. They include:

- Production indicators: output volume, production capacity, and product value;
- Labor indicators: number of employees, labor productivity, and working time;
- Financial indicators: revenue, profit, profitability, expenses, assets, and liabilities;
- Market indicators: price levels, demand and supply, and market share;
- Social indicators: wage level, social protection, working conditions, and motivation.

Four main stages of micro-level statistical observation:

1. Preparation: developing the observation plan and program, defining objectives and objects;
2. Data collection: gathering information from accounting reports, financial statements, and production journals;
3. Verification and processing: analyzing accuracy, completeness, and reliability;
4. Generalization: presenting results through statistical indicators such as averages, indices, and ratios.

Key roles of statistical observation in microeconomic analysis:

1. Evaluating enterprise efficiency (productivity, profitability, output, etc.);
2. Supporting managerial decision-making (pricing, cost optimization, technology investment);
3. Increasing competitiveness through comparative analysis;
4. Measuring resource utilization efficiency (labor, raw materials, and capital);
5. Reducing risks through predictive statistical analysis.

Thus, statistical observation within the microeconomic indicator system serves as a crucial tool for analyzing enterprise performance, enhancing efficiency, and determining development strategies. It ensures reliable data collection, accurate representation of microeconomic processes, and supports evidence-based decision-making.

Conclusion and Recommendations:

Statistical observation in the system of microeconomic indicators is one of the most important tools for thoroughly studying and accurately analyzing economic processes. It enables the evaluation of productivity, profitability, and resource efficiency at the enterprise or sector level.

This process plays a direct role in forming national economic policies, planning industries, and making investment decisions. Especially in the digital economy, integrating microeconomic indicators with artificial intelligence and data analytics technologies allows for faster and more precise forecasting.

The reliability of statistical observation depends on methodological approaches, observation frequency, sample accuracy, and data processing quality. Therefore, every student or economist studying microeconomic analysis must develop strong statistical thinking and empirical data-handling skills.

**Recommendations:**

- Digitization of statistical observations – broader use of automated systems for data collection and analysis;
- Expanding practical training bases – enabling students to work with real enterprise data;
- Modernizing local methodologies – adapting international standards (OECD, IMF, Eurostat) to the Uzbek economic context;
- Strengthening interdisciplinary integration – teaching statistics, microeconomics, accounting, and finance in a coordinated manner;
- Promoting local economic research – emphasizing domestic scholars' work in textbooks and academic publications.

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