

**QUALITY ASSESSMENT
OF MATERIAL PRODUCTION FACTORS
AS A RESERVE FOR THE ORGANIZATIONS'
COMPETITIVENESS IMPROVEMENT**

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Abstract: The requirements to the quality of workplace are formulated; workplace quality assessment indicators for material production factors are justified. Along with the indicators of the workplace selected for the evaluation of these, the quality assessment indicators are defined and the recommended values and the content of these characteristics are presented.

Modern economics expands the arsenal of tools used to assess the effectiveness of the material factors. Among them is assessment of workstations. Certification of workstations helps to determine the efficiency of their organization and whether they are used for their intended purpose.

Workstation is an area of one person or group of people of a certain area, equipped with facilities designed for a variety of customer service (working space of a shop-assistant, cashier).

Requirements for the organization and maintenance of workstations include the following.

1. High level of technical equipment.
2. Equipment complies with ergonomics.
3. Optimal arrangement of equipment, tools, products, packaging materials in a convenient manner.
4. Ensuring safety and a comfortable working posture.
5. Continuous replenishment of goods and packaging materials.
6. Prompt repair of equipment and inventory.

Attractiveness of enterprises operating in the consumer market depends on the level of service that they offer to their clients.

In modern economic conditions the service level of enterprises depends on the workstation conditions.

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A workstation includes the following elements of the production process: the object of labor (goods), the means of labor (equipment) and the employee. The efficiency criteria for the use of these elements are:

- the quantity and quality (for the goods);
- the use of equipment and advanced production processes in the workstation (for the equipment);
- productivity and comfortable conditions (for the employee).

The assessment of the quality of workstation can be made on the basis of the services analysis. To achieve this it is necessary to find out quantitative and qualitative indicators:

- the availability of claims, complaints from customers is measured by the number of claims per 1000 requests (orders), the number of complaints per 1000 customers;

- the speed of service equals to the average run time of request accomplishing, the service time of one customer is determined either by timing technique or by the calculation of the ratio between the enterprise operating and the number of customers served;

- full service equals to the number of services provided to customers along with the process of implementation and other performance

The performance index of the installed equipment can be used to evaluate the quality of workstations in the premises where the product (service) is getting prepared for selling.

In this case the actual performance of the equipment (P_a) is compared with the planned performance (P_p).

Assessment indexes are as follows:

- 1) $P_a = P_p$, indicates satisfactory performance
- 2) $P_a < P_p$, indicates poor performance
- 3) $P_a > P_p$, indicates excellent performance.

The workstations both in production and service sectors can be assessed in terms of wear. The actual value of the index of wear-and tear of the equipment is calculated using the formula

$$C_{wt} = 1 - V_r / V_o,$$

where C_{wt} – wear-and-tear coefficient; V_r – the residual value of equipment; V_o – the original cost value of equipment.

Assessment indexes are as follows:

- 1) if $0.41 < C_{wt} < 0.75$ – satisfactory;
- 2) if $0.76 < C_{wt} < 1.00$ – unsatisfactory.

Marginal values are specified by an expert for a particular company.

Assessment of workstations located on the trading floor is made by the level or the dynamics of sales (S). In the given below assessment indexes actual sales are shown as S_a , planned sales as S_p ,

Assessment indexes are as follows:

- 1) $S_a \geq S_p$ – satisfactory;
- 2) $S_a < S_p$ – unsatisfactory.

Assessment of workstations quality by the employment of productive labor is calculated by the formula:

$$C_p = T_a / T_p = ((T_w - T_r - T_{br})_a / T_{ws a}) / ((T_{ws} - T_r - T_b)_p / T_{ws p}),$$

where C_p – employment rate of productive labor; T_a and T_p – actual and planned time of productive work during a work shift respectively; T_{ws} – work shift time; T_r – is the time for rest and personal needs; T_{br} Is the time of breaks between shifts (if a retail company offers 24-hour service); index «a» stands for actual and index «p» means planned.

Assessment indexes are as follows:

$C_p > 1$ – satisfactory;

$C_p < 1$ – unsatisfactory.

Integral assessment of the workstations quality is made by multiplying the produced coefficients of workstation assessment indexes. If the integral coefficient is more than 1 the workstation can be rationalized. The integral coefficient is less than 1 indicates that the workstation should be eliminated.

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Оценка качества материально-вещественных факторов производства как резерв повышения конкурентоспособности организаций

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Ключевые слова и фразы: оценочные характеристики; показатели оценки качества рабочих мест; рабочее место; требования к организации рабочих мест.

Аннотация: Сформулированы требования к качеству организации рабочих мест, обоснованы показатели оценки качества материально-вещественных факторов производства. Наряду с отобранными для оценки качества рабочих мест показателями определены рекомендуемые значения и дана их содержательная характеристика.

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