https://cejsr.academicjournal.io

Ways of Quality Improvement in Projects

Bahronov Bahtiyor Razzoqovich
National Institute of fine art and design named Kamoliddin Behzod
Тел:- (99)-751-23-52
baxtl138222@gmail.com

ABSTRACT

In the most general sense, the quality of the project is understood as the performance of work on the creation of a project product in accordance with the agreed requirements of the customer or with the terms of reference on time and without exceeding the planned estimate.

Specific measures and methods for ensuring the quality of a product depend on its type. For example, to manage the quality of software products, different approaches and measures are needed than for the construction of nuclear power plants.

However, project quality management focuses not only on the product of the project, but also on the project itself. In this case, the approaches to quality management will be the same.

KEYWORDS: *Design, project management, project quality, quality measures, quality assurance methods, customer requirements, planned project budget.*

When planning, we must take into account this duality and lay down tools for quality control of the project product and design work.
“First of all, in order to deepen the work on reforming and liberalizing the economy, we must accelerate the work begun on the radical change in its sphere and industry, and the issues of modernizing regions, increasing their level of competitiveness, and developing export potential should always be in our focus” Sh.M.Mirziyoev.
The formation or formation of private property in the republic, the change in the concept of property - serves as the main factor in ensuring a stable place in the world market for local producers of the state.
The introduction of quality management systems at enterprises in accordance with international requirements is considered the key to the success of enterprises and serves to ensure the competitiveness of manufactured products, and this, in turn, will provide the population with high-quality and environmentally friendly, safe products.
In this regard, the Cabinet of Ministers of the Republic of Uzbekistan pays special attention to the development of this industry. In order to increase the competitiveness of domestic products and services in foreign and domestic markets, increase the export potential of the republic, the Government of the Republic of Uzbekistan adopted a number of resolutions regulating the implementation of Quality Management Systems providing benefits and preferences to enterprises implementing a quality management system, of which the Decree of the President of the Republic of Uzbekistan dated March 26 .2012 No. PP-1731 "On additional measures to strengthen incentives for exporting enterprises and expand export supplies of competitive products",
Decree N 349 of July 22, 2004, of the Cabinet of Ministers of the Republic of Uzbekistan “On measures to introduce quality management systems at enterprises that comply with international standards”, Resolution of the Cabinet of Ministers of the Republic of Uzbekistan on June 19, 2009 No. 173 “On additional measures to expand implementation at enterprises republic of quality

management systems that meet international standards" and Resolution No. 183 of August 29, 2006, of the Cabinet of Ministers of the Republic of Uzbekistan "On additional measures to introduce quality management systems at enterprises that meet international standards".

According to Article 356 of the Tax Code of the Republic of Uzbekistan, the taxable base is reduced by the amount of funds allocated for the purchase of new technological equipment, the introduction of quality management systems, certification of products for compliance with international standards, the purchase of complexes for laboratory tests and tests, but not more than 25 percent tax base.

According to the Decree of the President of the Republic of Uzbekistan dated March 26, 2012 No. No. PP-1731, the current procedure for reducing the taxable base for a single tax payment applies to microfirms and small enterprises. According to the resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 22.07.2004. No. 349, enterprises with testing laboratories are exempted from paying customs duties, including value added tax (excluding customs clearance fees), when they import technological equipment in accordance with the list approved in the prescribed manner, used in laboratory research and product testing , as well as components and spare parts, provided that their delivery is provided for by the terms of the contract for the supply of technological / equipment.

According to the Decree of the Cabinet of Ministers of the Republic of Uzbekistan dated June 19, 2009 No. 173, when conducting tenders for the purchase of products for state needs, priority is given, other things being equal, to domestic suppliers with a certified quality management system.

According to the Regulation approved by the Decree of the Cabinet of Ministers of the Republic of Uzbekistan dated July 21, 2010 No. 154, enterprises that have implemented a quality management system according to international standards, whose projects meet the above criteria, as well as projects that provide for the production of export-oriented types of products, have the priority right to be included in the Localization Program.

Project quality planning.

During planning, the quality standards that the project must meet are determined, and actions are determined to ensure these standards. The result of quality planning is a document - a quality management plan. It describes how the project team will implement the quality policy during project implementation.

If the project is implemented by an operating organization, quality planning should be based on the organization's quality policy.

In the absence of a formalized organizational quality policy, the project team must develop one for their project. This policy should meet the needs of project participants and stakeholders.

Particular attention is paid to planning and quality assurance in so-called "defect-free" projects, when the slightest deviation from requirements, for example, reliability, can lead to failures in the designed system and cause undesirable consequences - and in the worst cases, lead to disasters and loss of life.

.

When choosing methods to achieve quality, an important aspect is the planning of quality costs. The methods used in the analysis and planning of quality costs do not differ from the usual methods adopted in evaluating the effectiveness of a project - net present value, internal rate of return and discounted payback period (see Chapter 5). Since these methods are based on cash flows, cost-benefit analysis (CBA) is used to form these flows.

Quality costs are understood as the costs of activities associated with achieving the required level of quality. They include:

• cost of work to ensure compliance;

• the cost of work to eliminate nonconformities.

Compliance and non-compliance costs:

Compliance costs	Costs for elimination of nonconformities

https://cejsr.academicjournal.io

Planning	Waste
Training	Alterations
Experiments, research, benchmarking	Conducting new research
Quality control	Claims
Engage quality professionals	Return of products
Quality audit, etc.	Warranty service, etc.

It should be understood that improving the quality in the long term leads to a reduction in the cost of production and to a cheaper project. However, in the short term, it turns into additional costs.

In quality planning, the tool for estimating costs is therefore marginal analysis. In accordance with it, the value of additional income from improving the product of the project is calculated and compared with the increase in the costs of improving the product. The point at which these diverging curves will intersect is the optimum level of quality cost for a given project.

To improve the impact of product improvement and quality assurance activities, special attention should be paid.

Marginal analysis in quality cost planning.

The result of quality planning is the Quality Management Plan, which describes the quality system of the project, i.e. organizational structure, distribution of powers and responsibilities, procedures, processes and resources necessary to ensure quality management.

Depending on the scale of the project and its features, the plan may have a different degree of detail and formalization. In accordance with the requirements of ISO 9001:2000, it should consist of the following sections.

1. Management responsibility.
2. Review of the contract.
3. Design management.
4. Documentation and data management.
5. Purchase.
6. Ownership of the customer.
7. Identification and traceability.
8. Production process management.
9. Inspection and testing.
10. Measuring and testing equipment.
11. Nonconforming products.
12. Additional considerations.

As with other parts of the project plan that are subject to subsequent control, quality planning focuses on quality metrics - numerically measured indicators used to monitor the status of project quality management processes.

Formation of project metrics

Along with the general quality management plan, documents are developed that define steps to improve project management processes (here the process essence of both quality management and project management is manifested). These include:

• Process Improvement Plan – describes the procedure for improving processes: process boundaries, its configuration, metrics selected for the process, directions for improving process performance;

• Quality Checklists - describe the steps to be followed, usually used for repetitive operations.

Based on different approaches and the necessary information, the project manager should prepare a quality management plan:

1. A list of measured project quality indicators is compiled, for example: requirements for products and project documentation; requirements for the competence of team members; meeting start time; time of receipt of raw materials, etc.

2. Next, quality standards or guidelines are defined against which these indicators will be compared. These may include external standards: GOSTs, TU, SNiP, ESKD, ENiR, internal company standards, project management regulations, moral code of a company employee, document management policy, international standards (ISO), checkpoint plan, etc.

3. The required level of project quality indicators is set based on comparison with the corresponding indicators of other projects, peer review, test results, etc.), then the established delay in the start of the meeting should not exceed the generally accepted in the company.

4. Possible tolerances for the deviation of quality indicators from the standard are established, i.e. measurable limits of the indicator, if exceeded, actions should be taken to correct the quality.

5. After determining the tolerance value, the tools and methods used, the measurement error are indicated. Responsible and ways of documenting are determined, as well as the persons making the decision to correct the quality in case of its violation, the procedures for such correction, the dates of control and the name of the documentation used.

In conclusion, I want to dwell on the main points of the quality documentation system and organizational support for quality management.

Documentation includes:

• general quality policy in the company;

• the company's regulations for quality management in the project (including the definition of responsibility for quality), the main methods of quality assurance and the structure of the documents of the quality assurance system;

• a quality management plan for a particular project;

• work and control instructions;

• other normative documentation and additional technical literature.

The tools and methods of quality planning are:

1. Quality audit. One of the most important tools is a project quality audit. A quality audit is an independent peer review that determines how project activities comply, and whether they comply with the rules, processes and procedures established within the project or organization. The purpose of a quality audit is to identify inefficient and uneconomical policies, processes and procedures used in a project. The number and timing of planned project audits may be determined by project milestones or milestones. Unscheduled audits are carried out at the request of the customer, heads of departments and divisions. Quality audits are carried out on the basis of criteria defined by the normative documentation of the quality management system (ISO 9000 requirement) and project management system (PMBOK). Scheme for conducting an internal quality audit

2. Process analysis. A tool that allows you to provide for the implementation of actions within the project processes described in the process improvement plan and aimed at identifying organizational and technical issues that need improvement.

3. Causal diagrams. The author of this technique is Kaoru Ishikawa. The proposed methodology makes it possible to systematize the search for possible causes leading to violations of planned quality indicators during the implementation of the project. The uniqueness of this technique lies in the fact that the diagram makes it possible to assess the degree of occurrence of quality violations, which is especially important when planning projects.

4. Block diagrams of management and production processes. The purpose of this tool is to ensure control and quality at all stages of the project.

6. Comparative analysis of costs and benefits (Cost-benefit-analysis). Cost-benefit analysis is a set of methods for checking the possibility of changes or the need to abandon them. Cost-benefit analysis

involves an assessment of situations during the project. Depending on where C B A is used, both quantitative and qualitative assessment apparatus can be used. In the course of the analysis, it makes sense to determine changes at either the micro and macro levels, since each level will correspond to certain formal procedures for assessing and selecting solutions. In the most common theory, CBA suggests the following components of analysis, which are sometimes divided into seven or eight steps:

1) definition of investment objectives (Project objectives definition);
2) project identification and prioritization;
3) feasibility analysis and variant comparisons (Project feasibility and option analysis);
4) economic analysis (Project economic impacts analysis);
5) investment efficiency analysis (Project investment analysis);
6) analysis of financial ratios (Project financial ratios analysis);
7) multicriteria analysis (Multicriteria analysis);
8) project analysis under conditions of uncertainty (sensitivity and risk) (Project risks and sensitivity analysis).

Conclusion

Thus, a project is defined as a temporary effort undertaken to create a unique product or service and the quality of the project is paramount…

Project quality planning is carried out to select those provisions of standards and regulations that are appropriate and possible to apply to this particular project, as well as the activities and work necessary to ensure the requirements of these standards for the quality of project results and processes.

Quality planning is part of the project planning process as a whole, and its results (project quality plan) should be reflected in the Project Management Plan.

Control over the quality of project implementation should be planned and systematically carried out in the form of various activities, such as audit, monitoring and expertise.

Project quality management is an important aspect of project management, along with cost and time management. Quality and quality management play a strategic role in today's economy to ensure competitiveness.

There are many methods of quality management, project planning and implementation. Each type of management activity uses its own method. - quality management methods are applied in practice.

List of used literature:

1. Закирова А.Р. Статистические методы в управлении качеством / А.Р. Закирова. – Казань: Казан. ун-т, 2015. – 40 с.
2. Зубарев Ю.М. Математические основы управления качеством и надежностью изделий: учеб. Пособие / Ю.М. Зубарев. – СанктПетербург: Лань, 2017. – 176 с.
3. Леонов О.А. Управление качеством: учеб. / О.А. Леонов, Г.Н. Темасова, Ю.Г. Вергазова. – Электрон. дан. – Санкт-Петербург: Лань, 2018. – 180 с.
4. Метрология, стандартизация и сертификация. Практикум: учеб. пособие / В.Н. Кайнова [и др.]. – Санкт-Петербург: Лань, 2015. – 368 с.
5. Обеспечение качества изделий машиностроительного производства: учеб. пособие / А.А. Афанасьев, А.А. Погонин. – 2-е изд., доп. – М.: ИНФРА-М, 2018. – 376 с.
6. Основы обеспечения качества: учеб. пособие / М.В. Самсонова. – М.: ИНФРА-М, 2017. – 303 с.
7.https://intuit.ru/studies/courses/2196/267/lecture/6808
8.https://studme.org/352894/menedzhment/upravlenie_kachestvom_proekta
9.https://project.dovidnyk.info/index.php/home/upravlyeniyeproyektamisprimavera/541-upravlyeniye_chyelovyechyeskimi_ryesursami_proyekta
10. Toshkhojaeva, S. (2016). The Linguopoetic Nature of the Artistic Repetition in the Works of Erkin Azam. Anglisticum. Journal of the Association-Institute for English Language and American

Studies, 5(5), 114-118.
11. Ташхужаева, Ш. Г. (2015). Фонетические диалектизмы в произведениях эркина аъзама и их лингвопоэтические свойства. Ученый XXI века, 69.
12. Ташхужаева, Ш. Г. (2015). Phonetic dialecticism in erkin azam's works and it's linguapoetical properties. Ученый XXI века, (12 (13)), 66-69.