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IMPLEMENTATION OF LEAN MANUFACTURING SYSTEMS

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Lean manufacturing allows improving the quality of products and services, ensuring the growth of labor productivity and the level of staff motivation, which affects the growth of the enterprise's competitiveness. Using a lean manufacturing system is very relevant, but lean manufacturing tools do not work without ideology. At the initial stage, it is better to focus on the 5S system, the essence of which is to restore order in the workplace. Lean manufacturing is a tool that can rejuvenate an enterprise and increase management efficiency, allowing it to compete in the global market.

Keywords: Lean manufacturing, 5S system, management, Lean Tools

Lean manufacturing exists to reduce the losses that are in every workplace. This approach allows improving the quality of products and services, ensuring the growth of labor productivity and the level of staff motivation, which affects the growth of the enterprise's competitiveness. The paper covers three main points: relevance, tools and the forecast for the development of lean manufacturing in Russia.

Firstly, the use of a lean manufacturing system is highly relevant to Russian enterprises. This is due to the following factors [1]:

- 1) high cost of production;
- 2) low quality of products;
- 3) outdated technology;
- 4) violation of the delivery time;
- 5) lack of qualified personnel.

Lean manufacturing is an innovative approach to quality management, which includes optimization of production processes focused on customer requirements, improving product quality and reducing costs. Innovation can be utilized in all areas of a manufacturer's business model [2]. Lean thinking can be created around services, processes, distribution channels, and partner companies [5].

Lean manufacturing can be considered as a philosophy of managing a manufacturing enterprise, based on the observance of three major principles:

- 1) the elimination of all types of losses in the process of production
- 2) the involvement of all personnel in improving the quality of goods and services
- 3) continuous improvement of production processes

Secondly, Russian enterprises attach great importance to lean manufacturing tools, while foreign organizations – to the formation of lean manufacturing ideology. If top management is interested in introducing lean production, then the result will be, and if not interested, then this is a waste of time. However, lean manufacturing tools do not work without ideology [3]. There are many different tools for implementing Lean manufacturing, such as SMART, PDCA, VisualFactory, KPI, Kanban, Kaizen, and Just in time [4].

At the initial stage it is better to focus on the 5S system, the essence of which is to restore order in your workplace. The system is named after the first letters of Japanese words:

Seiri (sorting)

Seiton (keeping order)

Seiso (keeping clean)

Seiketsu (standardizing)

Sitsuke (perfecting).

To begin a serious business transformation with establishing order in the workplace is a fairly common practice.

To sum up, it is worth noting that in times of economic downturn, lean manufacturing is a tool that can rejuvenate an enterprise and increase management efficiency allowing them to compete globally. In Russia Lean manufacturing faces problems caused by the peculiarities of the Russian mentality, therefore, when introducing lean manufacturing methods, it is necessary to take into account the peculiarities of Russian culture. Manufacturers must strive for a system of lean production and lean management. While lean manufacturing is easy to understand, it is often challenging to implement, as it requires new viewpoints and management procedures up and down the complete value stream [5].

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