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THE LEAN PRINCIPLES IMPLEMENTATION IN THE WORK OF THE UNIVERSITY

Pretty practical application of the strategy to reduce costs is the paradigm of lean manufacturing is a management philosophy of company Toyota.

The essence of lean production reveals the following key components:

- the emphasis on the permanent reduction of all kinds of losses aimed at continuous improvement of the effectiveness of educational institutions and lower costs.
- rational organization of workplaces, which allows achieving maximum order, efficiency and productivity;
- quality control throughout the University and the quality here includes not only the quality of educational services but also all the activities;
- standardization of work. It is the stabilization and maintenance of the improvements of the results due to the training and discipline, which should ensure stable high results [1, p. 311].

Lean production technology involves the reduction of losses in seven main areas:

• losses due to the manufacture of defective products occur due to spending time and resources on the detection of defects and for processing of defective products; this category also includes losses from incorrigible marriage. In the University these include the publication of outdated and poor quality textbooks, the admission to protection of non-compliant projects and dissertations, conducting and verification of resist examinations;

• losses due to the production of non-marketable products–are the result of failures in the development of forecasts of market conditions thanks to which graduates of the part of the professions (e.g., economic and legal) can't find work and are forced to be reprofiled;

• losses due to excess inventories of raw materials are formed through the storage of a bigger amount of resources than is objectively needed to ensure the stable operation of the University;

• losses due to the inefficient time-table, lateness of the teachers, excessive and prolonged paperwork, ineffective communication between the teacher and the student;

• losses due to excess displacement, for example, it can be moving of groups of students and teachers between remote classrooms and buildings of the University; excessive movements of operators in searching for tools which are intended for them, and so on;

• losses because of lack of control over spending – the water that keeps dripping from a tightly twisted faucet, and light is not switched off after completion of the work shift, though imperceptibly, but increase production costs; this category also includes the heat loss due to old windows with low insulation level;

• losses due to reckless follow production or management fashion. These losses can be very large: for example, very expensive acquisition of costly information management system, which is then not used or used only a few percent of its capacity; causes losses implementation not tested IT-applications of its own production.

British universities and colleges, for example, began to implement the principles of thrift a little more than ten years ago [4, p. 16]. This introduction began with more or less scattered experimental projects with the narrow focus, which gave a rapid result, however, is not always coordinated with the main processes of creation of added value [3, p. 11] [5, p. 57]. Using lean

tools improved the overall efficiency of the universities by saving staff time and reducing costs. Satisfaction of student also increased. However, the main focus was made on long-term cultural changes through conscious and reasoned involvement of the whole staff of the University [4, p. 63].

At the University, this theory finds application in the implementation of the electronic workflow system, careful use of paper and its recycling.

In the implementation of information technology paperwork reduction does not happen automatically. When e-mailing, paper consumption grew about 40 %. This was due to the not always justified printout of the electronic message due to the habits of employees to work with paper documents. Therefore, it is desirable that the complex of measures on the introduction of electronic document circulation in the organization also provides measures for optimizing the use of paper. Notice the situation relating to documentary maintenance of managers. The problem is not only to train leaders to work with electronic documents. It is much harder and deeper. Workflow management includes not only those transactions that can be automated, and those which require the perception of information, its evaluation. It is important to take into account the psychological aspects of perception, the functional asymmetry of the right and left hemispheres of the brain, the combination of creative and logical thinking. Sometimes the head of a high rank works with weakly structuring information reflecting the multidimensional managerial situation, so it is better to work with a paper document. In contrast, for the perception of a structured and factual information, the electronic document can be easier than a paper one. Therefore, in the implementation of electronic document flow shall be provided an opportunity to carry out the printout of the documents received in electronic form, to report to the head. However, in the context of increasing use of modern information technology, more and more leaders of different ranks prefer working directly with the systems of electronic documents, including a handwritten entry of orders (resolutions), visas and use of electronic signature counterparts.

In our opinion, fundamental is the fact that in recent years were held qualitative changes in two main aspects: the use of computer technology to prepare the administrative documents (in fact, as a more perfect means of replacing the typewriter) to the ability to build a coherent system based on the use of electronic documents and electronic exchange of information; on this basis the transition from the use of individual documents on the machine carrier to the mass use of electronic documents. Given these circumstances, it is necessary to adjust the existing or even to build a new system of concepts that form the basis for further development of electronic document management.

American universities are becoming on the path of lean manufacturing. The University of Central Oklahoma, University of Iowa, University of New Orleans, State University Bowling Green, Rensselaer Polytechnic Institute, the University of Scranton improve services and administration procedures, simplify the main and supporting processes, improve the function of the campus, reduce bureaucratic red tape and paper consumption, etc. The experience of American universities is a reflection of the possibilities of implementing Kaizen methodology in higher education and the usefulness of such initiatives to all stakeholders [2, p. 47-86].

In Kyiv National Economic University named after Vadym Hetman students implement the project "Green University", which will help to optimize the use of paper, it's recycling. Environmental club "Green University" has identified the following priority projects:

- Placing containers for paper and organization of its removal.
- Placing containers for used batteries.
- Placing containers for solid waste.
- Create Bicycle Parking facilities in existing premises and adjacent areas.
- Development sites and aggregator companies for nature preservation.

In the framework of this project in the halls of the University campuses and socially active departments were installed containers for collecting wasted paper. The funds received from

recycling go to the active departments' participants, further development of "Green University", and the orphanages of Kiev. In one year were collected 2890 kg of paper. Purchased new paper for departments in the amount of 1400 UAH.

The collected paper is already saved: 49,13 trees aged about 30 years, 75140 liters of water,of 8,67 cubic meters of fertile lands, 11560 kilowatt-hours of electricity.

Given conclusions allow considering cost optimization in the context of not only short-term financial challenges for domestic resource mobilization. The building management system of financial and non-financial components of the institution, where the system cost optimization is included, solves also important strategic tasks, reinforcing the market position of the University and preparing it for an increase of competition in the future.

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