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Improvement of processes with a lean approach in the HR department of a company

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Abstract: After the reform of the manufacturing and production processes, the lean approach has become more and more popular and was applied in service processes and also in office environments. In the management sector, there is a debate about whether these application experiments can be called lean. The basis of doubt is the fundamental difference between production and service. Management literature has accepted the concept of lean office, which also has a kind of signaling in this discourse. In the course of our study, we show how service processes can be improved with the help of the lean thinking. We made our research in the Human Resources department of a domestic company.

Keywords: continuous improvement; innovation; process management; human resources;

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INTRODUCTION

Lean in general

'Lean' is a Japanese word translated to Hungarian, means thin or slim. The definition of this word absolutely reflects the nature of lean thinking.

Basically, the lean is the European and American version of the Toyota Production System (TPS)

TPS is created by the Toyota Motor Corporation and this system was different from any other production system in use those days. The development of this system became necessary because Toyota had to compete with American companies, which were more capitalised than them (Kosztolányi & Schwahofer, 2016).

Lean management, lean production and the lean method are often used as synonyms for lean. Companies implementing lean production are also called lean organizations (Gyenge et al., 2015).

In the foreign literature, thirty-two definitions for lean management, but there is not one generally accepted definition. We would like to describe the important ones.

According to Womack et al. (1990), lean is a dynamically changing process that strives for continuous improvement with defined principles and "best practices." Accordingly, it combines the best features of both mass production and handcraft production.

According to Horváth (2020), in the definition of lean management, "lean" means flexible, agile or easy.

Shah and Ward (2007) created the most internationally established concept explanation. According to them, lean production is a sociotechnical system, the purpose of that is to eliminate loss, while at the same time reducing or minimizing supplier, customer, and internal diversification.

The five basic steps of lean were formulated by James Womack and Daniel Jones in 1996. The foundations of lean were laid by formulating these five steps:

1. Value
2. Value process
3. Flow
4. Pull system
5. Continuous improvement (CI).

Lean philosophy

Jeffrey K. Liker spent two decades in Toyota's factories studying what makes Toyota more successful than its competitors.

He summarized their observation in fourteen principles, and we would like to highlight two of them because we think these two principles are the

most related to our subject. These are the 6.th and the 14.th principles:

- 6. principle: Standardized tasks are the foundation for continuous improvement and employee empowerment.
- 14. principle: Become a learning organisation through relentless reflection (Hansei) and continuous improvement (Kaizen).

The lean thinking has two basic principles:

1. *Respect people*: there is often a misunderstanding regarding to the fact that after development and optimization of a process, human resources become unnecessary, and so employees get fired. Lean thinking completely the opposite, because they look at human resource as the most important value of a company, and instead of sending workers away, they keep them and rotate them to a different area. If necessary, they will provide training for them.

2. *Reduction of losses*: basically, this should be among the basic principles of every business (Kosztolányi & Schwahofer, 2016).

In their book, Michael Ballé and Freddy Ballé (2014) describe lean with the following equation: lean = respect + kaizen.

Later we are going to tell about more about the respect. Kaizen, i.e., continuous improvement, which contributes to reducing losses.

It is also important to highlight the "whole process approach" as one of the important factors of lean, which means that if something is changed or developed, the entire process must be monitored and not just the given process step.

Another important factor is the division of labor. Normally, only small part of our activities creates value, a larger part is necessary but not value-creating activities, and the rest are loss (Kosztolányi & Schwahofer, 2016; Bogdán & Popovics, 2022).

Taiichi Ohno and his co-workers determined seven types of waste which are the following: overproduction, waiting, transportation, over-processing, inventory, unnecessary motion, defects (Arunagiri & Gnanavelbabu, 2014).

Nowadays, researchers usually add an extra loss, which is the unutilized creativity of the employees (Kelemen & Kalló, 2020).

Today, it is storable that lean has become a 'best practice' and a new paradigm in production and service management (Báthory, 2020).

After the general information we are going to tell about some related fields of lean management.

Innovation

First of all, as we did in previous subsections, I would like to clarify the concept of innovation.

There are many definitions of innovation, but the most widely accepted one is in the fourth edition of the Oslo Manual, according to innovation is a new or improved product or process (or a combination of them) that differs significantly from the previous products or processes and has been made available for potential users and the business process was introduced (Oslo Manual, 2018). Basically, there are four types of innovation: product, business process, marketing and organizational (business model) innovation (Kahn, 2018)

We believe that lean is related to all four types of innovation, but mostly to process and organizational (business model) innovation, because in case of the former one, a new or innovative process will be implemented, and in case of the latter, new methods can be introduced into the company's practice.

There is still no widely accepted unified definition of lean innovation (Solaimani et al., 2019). Lean innovation is about how we can work efficiently with our existing knowledge. "Lean" innovation is simply about quickly acquirement of the knowledge. This helps companies do three basic things. First, doing the good thing, then doing that activity well, and then doing it better (Sehested & Sonnenberg, 2011).

Process management

First of all, we would like to explain the notion of 'process'. There are a lot of definition about 'process'. We would like to highlight two of them. According to one, the process is a series of activities that, when placed next to each other, generate value for the customer (Hammer & Champy, 2000). According to ISO 9000 standard definition, the process is series of connected activities which transform the inputs into outputs. We would like to highlight also the notion of the process management what is a comprehensive approach whose purpose is to constantly adapt company processes and the organization to customer needs and changes in the external environment (IFUA Horváth & Partners, 2006).

The process transformation has many success factors.

The first and most important of these are the clearly defined objectives. Planning of the change and the continuous communication to the stakeholders are also significant. It is crucial that the value-creating effect of the measures related to the changes have to be presented to the stakeholders in a measurable way. In addition to a high level of detail, it must be comprehensible for them. For successful implementation, it is essential that all employees receive support, and last but not least, the consistent

monitoring after implementation should be performed (Gályász & Darnai, 2021).

By applying modern process management, the operation of companies will be transparent, can be analyzed easily, will be measurable and continuously improvable, and for more, it creates the opportunity to reduce operating costs (Fenyves, 2020).

We consider it important to mention the so-called ECRS method. The acronym consists of the initial letters of the words Eliminate, Combine, Rearrange, Simplify. The principle of the method is to eliminate unnecessary activities, combine activities appropriately, rearrange the sequence of operations and make them as simply as possible. The sequence of letters refers to the prioritization order of activities (Kelendar & Mohammed, 2020).

Quality management

Why quality management is necessary?

In production and service 'quality' is now a minimum expectation.

First, will explain what quality is. According to the standard wording, quality is the measure of the quality of given thing (product, service, process, person) fulfills the requirements imposed on it. Quality management is a set of activities related to the management and supervision of a coordinated organization, which central issue is quality (Gutassy & Gutassy, 2018).

Here we would like to mention the total quality management (TQM), the basic principles of which were formulated in the United States and were based on Japanese methods. TQM is a management that aims to improve all the activities of the organization with the full commitment of the employees and to satisfy the customer's needs as much as possible. The concept includes the principles of TQM, which is customer focus, continuous improvement of processes, and total commitment (Nika, 2021).

As we mentioned earlier the aim of the rapid implementation is to raise the quality of the product or the work process.

Lean in services

Discussing services, customer value is the perfectly implemented activity. The most important value is the information in our possession and the human resource who manages it.

One of the basic features of the service is that it cannot be stored, so it provides value when it is in use. It follows that, the service users, participate in the process, which they evaluate.

While providing a service, the individual sub-processes are created according to a chain logic, but

it is worth considering the hierarchical relationship between them.

The process hierarchy is the following (from top to bottom): business processes, main processes, sub-processes, activities, operations. In order to continuously ensure the flow, it is necessary to strive for constant optimization, i.e., to eliminate 'muda'. (Muda means 'loss' in Japanese).

In our opinion, it can be useful to create a Blueprinting model of the process, because it can show the critical points of the process. The process is good if the customer can get through without stopping.

The 'Flow' principle is automatic because the provide of the service does not start until the customer start using it.

In order to reach continuous development and improvement, motivation and activity of the employees must be ensured which can be achieved by active participation of the stakeholders (employees) (Gyenge et al., 2015).

Although there are nor or only a few standards and a methodology for use in services, Lean, when applied, can generate large economic and financial benefits (Gupta et al., 2016).

There are quite a few studies in the domestic and foreign literature that examine the application of lean, primarily in the health sector, but there is also research on introduction of lean in the construction industry.

Lean in office environment

Lean management has now become synonymous with increasing competitiveness, so it is not at all surprising that the adaptation of the principles has moved from the production processes to other activities of companies.

Analyzing the processes in office environment often difficult.

The main reason is that the management have not got reliable information on how their employees use their actual working time and the measure of workload caused by repetitive tasks.

For this to be achievable, a huge data warehouse would be needed, as well as software which collects, the proper information. In order to improve the process, these data must be analyzed by using various statistical methods.

During the analysis, it is not the individual work processes, what should be examined, but patterns, that draw attention to system-level errors during the implementation, which can be like logical sequence error in a process, a long waiting time at one point of the process, too much time spent on a certain activity or doing unnecessary activities (Kelemen & Kalló, 2020).

Just like during the production, losses can also occur in the office environment too, now let's look at some examples of these.

The classic example of office overproduction is "extra" information, but here we could also mention preparation of reports, no one required. Another great example is losing time. When we have to wait for customer feedback, or perhaps for the return of documents, or even for a document to be signed. It belongs to the category of transportation, when the office equipment is too far from the office, or when it would be necessary to obtain the signature of a senior manager. It belongs to the group of overwork, which was already mentioned above, the preparation of unnecessary reports and accounts, the repetition of manual data entry, the use of non-integrated software.

"Stocks" include processed information, unread e-mails, unused files in the database, redundant completed documents on workstations and if we do not have enough storage space, because the things that we are no longer use are taking up space. A common example of unnecessary movements is searching for files, piles of documents on the table, in drawers and cabinets. Finally, the most common error in the group of errors is incorrect data entry, but this category includes missing information, lost notes, and not having a checklist (Losonci, 2010).

Relationship between Lean and HR

First of all, we describe the role of Human Resource Management (HRM) at Toyota, as an exemplar of lean organizations.

The role and task of the HR department is extremely diverse, and its function goes far beyond hiring people, managing payments, benefits and promotions, it's so much wider.

In most cases, workers are promoted from the human resource area to top management. At Toyota, those employees who are working in HR and they have a close connection with blue-collar workers on a daily basis.

Many companies outsource their HR department in order to save significant amount of money. On the contrary, at Toyota, HR is much more than managing a huge amount of data. Mainly, when leadership roles are given to HR workers. Employees in the industrial sector are in close, daily connection with each other. At this Japanese automaker, for example, no one can be promoted without approval from HR. It follows from this that they have a direct influence on the career path of their colleague, for that of course they must know each other personally, their performance and their intentions (Liker & Hoseus, 2008).

Among the HR functions, I would also highlight Hoshin-Kanri. Hoshin means goal, plan, compass, and kanri means management. The target proposal comes from the company's top management, but it must be agreed upon at all organizational levels down to the level of the individual. Each employee has a hoshin, that is, a well-defined, specific, measurable goal, which is constantly reviewed throughout the year. Toyota's continuous development is mostly encouraged by this management technique (Liker & Hoseus, 2008; Jolayemi, 2008).

Respect people

The basic principles of lean must be applied to the entire organization and must serve as guidelines for all employees. In order to be able to realize the goals of the lean, the company needs dedicated employees, and employees must be involved in the processes that affect their work. The most important pillar in Toyota's system is people management. The logic behind this idea is that they see their own employees as the most important source of continuous development. The most important things for the successful process developments and for the fastest problem solving are the employees' reflections and suggestions. The company needs to handle these remarks appropriately. This is based on a well-functioning suggestion system. Those companies that do not properly manage employee suggestions, do not appropriately utilize the knowledge of their employees and in parallel they might lose the significant part of the benefits come from the application of lean management. (Losonci, 2010). Lean companies use well-identifiable human resource management practices, such as teamwork, group problem solving, job enrichment, rotation, and a multi-purpose skilled workforce.

METHODOLOGY

During our project, we sought answers to three research claims:

- C1. The implemented processes improvements are saving significant time for employees in the HR department.
- C2. The implemented processes improvements in the HR department are save money for the company.
- C3. The implemented processes improvement in HR department are contribute to environmental protection.

To prove them, we used one quantitative and one qualitative method from among the types of primary

research methods. Among the quantitative methodologies, we used online questionnaire. We created the questionnaire using the Google Forms editing interface and sent it to the employees via e-mail system. At the time of posting, the department had sixty-five employees, but due to maternity and other leave, the statistical number was fifty-three, that is the maximum number of employees.

The questionnaire contains multiple-choice, sentence-supplementary, explanatory, and Likert-scale questions.

The questionnaire can be divided into two parts. The first contains demographic questions, and the second contains questions assessing the opinions of the employees, thirty-four in number.

During the limited time, twenty-nine responses were received, which represents a completion rate of 54.71%. It is important to mention that the results of the questionnaire are not representative.

Among the qualitative methods, we chose the professional in-depth interview, as we believed that these two methods perfectly complement each other thus gives us a more accurate picture of the area under investigation. Due to the pandemic situation, the interview with two HR managers was conducted via Microsoft Teams. The structure of the conversation followed the questionnaire, and its "backbone" was formed by fifteen questions.

RESULTS & CONCLUSION

C1.

The results of the questionnaire according to the vast majority of colleagues – revealed, that after the process development the work has become easier, faster and more efficient. Ninety-six percent of respondents claimed that. During the interviews, we asked questions about the benefits of the developments, and what indicators (KPI) were used and monitored after their implementation. The primary goal of HR development is to shorten the length of the processes. In many cases, the amount of time saved can be precisely determined, but there are also cases when it is only possible to make an estimation. When we are able to define a process duration in exact minutes, the cycle time of the activity shall be known.

There are developments that have positive effect not only on HR department, but also on other related areas. HR primarily is in close contact with the financial and legal departments. By using lean, we can ease the workload of the employees, which significantly increases the "customer experience".

Based on the answers we received, we accept this claim.

C2.

As I mentioned above, the primary goal is to reduce the duration of every process. The phrase that time is money is completely true, because where we save time, we also save money.

After the development, the employees will have more time from their working hours to do value-creating activities, thereby generating higher revenue and they can “save” hiring a new employee, which also has time and financial benefit.

Tracking the amount of money saved is difficult for most HR developments. The company's goal is to better extend the lean philosophy to HR, and as a result, more attention will be paid to the analysis of other indicators. In possession of these information, we only partially can accept the claim, because the amount of money saved can mostly only be estimated.

C3.

We mentioned earlier that environmental protection is not the primary goal of these developments, but regardless, the company places an extremely high emphasis on it. The positive impact on environmental protection is rather a pleasant result of HR developments, especially in cases where the process is digitized, so less paper has to be used. There are cases when the exact number of saved sheets can be granted, for example on an income certificate. If there is such a positive effect, then that development has an Environment Health Safety (EHS) indicator. We can only partially accept this claim.

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