

THE IMPACT OF COMMUNICATION ON THE QUALITY OF THE PROCESS AND THE IMPORTANCE OF USING THE LEAN METHODOLOGY IN ELIMINATING BOTTLENECKS

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Abstract: Organizations, whether non-profit associations or multinational companies — exist for one reason and are driven by the same mission: We will achieve more when we work together as a team than we can achieve as individuals. In order to create a truly effective team, each member of that team must understand the vision, mission and goals of the organization and work with the same beliefs and move in the same direction as the company. Internal communication is crucial when engaging employees, which can affect the increase profitability of the company and supports its competitiveness. Effective communication in the company has become a necessary condition of work that creates an environment of cooperation and connects the expectations of employees with the goals of the company. On the other hand, ineffective communication can become a factor of trouble and can paralyze the company's core functions. In everyday life, people use communication as a channel to interact with each other. Good and effective communication is one of the necessary tools for achieving high performance among employees and enables increased productivity through clear communication between employees. Such communication has the effect of increasing the cohesiveness of the team and increasing the performance of employees and at the same time reducing turnover in the organization. However, poor communication in the organization leads to loss of trust and ineffective work. The main goal of the work refers to the presentation of the problem that arises due to insufficiently defined internal communication (vertical and horizontal) within business systems, because organizational communication is the basis of the LEAN concept, in order to enable the organization to function according to the philosophy of "minimum investment for maximum profit".

Keywords: communication, process, lean, manufacturing, employees

1. INTRODUCTION

LEAN manufacturing originates from the Toyota Production System (TPS), created by Sachichi Toyoda, the founder of Toyota Industries. Toyoda worked on an automated weaving loom (late 19th century). The production of these products led by Toyoda led to the development and adoption of some basic principles of LEAN production. The term LEAN appeared in the technical and professional literature in the West at the beginning of the nineties of the twentieth century. The term LEAN itself is essentially untranslated and is generally accepted to be used in its original form everywhere in the world. Its essence means something that is rational, thrifty and even miserly (Lazarević, 2015).

Also, in recent times, the LEAN system can be increasingly applied in production activities such as: logistics, development, transport, administration and preparation. More precisely, the LEAN concept was implemented from manufacturing companies to other activities in the service of production and services, where it shows great potential (Rajić, 2009). With all the methods and techniques that LEAN uses, the most important aspect in its application is the employees who make the company efficient, and who strive for a perfect system that is constantly improved and enables the systematic improvement of knowledge, thus leading to the improvement of business.

The basis of the LEAN concept is a well-defined system of communication - a clear process setting and delegation of tasks. This approach in companies can be applied with a clearly defined system of communication between management and employees, between processes or parent company and subsidiary company.

Organizations that lack communication in everyday life do not achieve the same performance as those that have clearly established communication systems (Thomaz, 2010). Researchers such as Bakar, Walters and Halim have expressed the importance of communication in organizations (Bakar et al., 2014). However, they noticed that the importance of communication between employees is often neglected in the organization.

This paper will provide a specific example of undefined internal communication between the parent company and the subsidiary company, where the subsidiary company is in a dependent position, which directly affected the quality of the process.

2. COMMUNICATION

Internal communication as a managerial discipline has only recently become important as such. With its gradual development, it is now perceived as a tool, which when it works effectively can become a strong motivator, but on

the other hand, a strong factor of trouble. Defining internal communication becomes an important condition of work and its content is related to human resources and managerial work with the most important goals, i.e. focusing on providing information support, setting up processes for performing work, creating conditions for cooperation and a climate for the desired work (Folorunso et al., 2014).

Hierarchical communication is communication from superiors to subordinates in an organization (Armstrong, 2010). The message is passed from top to bottom along the hierarchy. This is to ensure that employees clearly understand the goals of the organization (Yates, 2006). The more information that is shared, the more productive the employee is expected to be (Miller, 2004). Effective hierarchical communication improves management communication by sharing regular updates of changes in the organization (Mohelska, 2012). In addition, hierarchical communication effectively conveys work-related information to subordinates and ensures that employees are working in the best interest of the organization. The supervisor could also use this communication to provide feedback on employee performance so that individuals can improve it from time to time.

In the specific example given in the paper, the relationship between the two companies is a parent company and a subsidiary company. The parent company is the base for development, planning, marketing, direct relations with suppliers and for small series production. The subsidiary company is the one that does production and has defined departments in its organizational structure such as engineering, shipping and HR. Instructions are received directly from the parent company on work orders according to which products and semi-finished products are processed and in what quantities with defined processing times for the order. After processing control, products and semi-finished products are sent back to the parent company from where they are sent directly to customers.

The process delegation and work orders framework is shown in Figure 1 below the text:

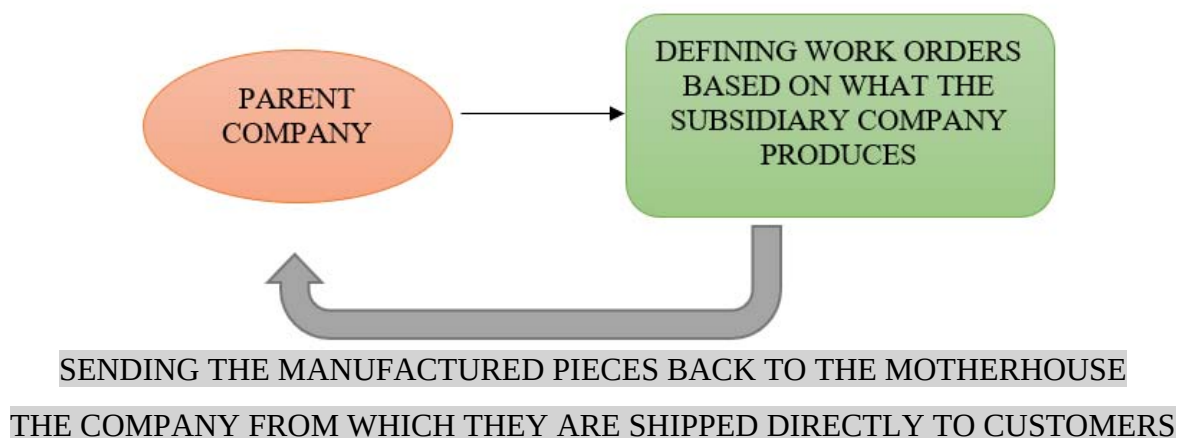
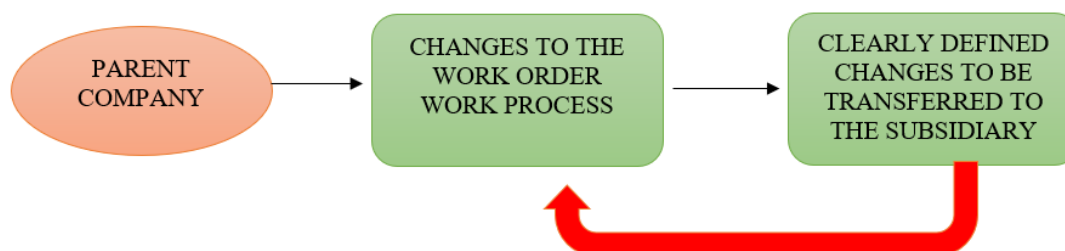


Figure 1. Example of delegation of processes and work orders

In this case, the subsidiary company is in a subordinate position in relation to the parent company. If there are any changes related to the way the product is processed, more precisely the specifications according to which the product is processed, the parent company is obliged to inform the subsidiary company. At the meetings in which the director of the subsidiary company participates together with the engineering and production manager, the planning department of the parent company, it is necessary to inform the subsidiary company about the changes that have occurred, as well as to state all changes clearly and in detail on the work order.

The problem that arose due to ineffective communication, and the results of which will be explained in the following text, are the changes related to the change in the product processing process, which were not delegated in a timely manner with the subsidiary company. The changes that occurred were not made as changes to the work order. This situation led to a large number of scrap products, which further implied direct complaints from the customer.

The problem that arose due to ineffective communication between the two companies is shown in Figure 2 below the text:



1. Process change in the parent company that is not delegated with the subsidiary company
2. Incorrect and insufficient information on the work order

Figure 2. Example of ineffective communication

3. LEAN CONCEPT

Different companies of various activities around the world have recognized the theoretical and practical aspects of the LEAN concept, with the aim of introducing and organizing the systematic improvement of business processes.

Improvements are the basis of the LEAN philosophy. Most managers who manage production often lose sight of the bigger picture of the business, they are focused on individual tasks, short-term jobs. In this way of thinking, the whole is lost and people and structure are forgotten, and the goal of process orientation, more precisely establishing and accepting the production process as such, is user satisfaction and delivery of the given product at the right time (Hammer & Champy, 1993). Processes often do not have a person in charge of their efficient work, because managers are mostly in charge of departments or business units, and no one is responsible for achieving the complete work, that is, the efficiency of all processes. Authors like Harmon (2010), Davenport (2005), Bititci (2010) confirm that the way organizations configure and manage their processes is the key to the success of organizational flexibility, agility and its adaptation to market demands (Mandić, 2019).

The situation that occurs due to the aforementioned omissions regarding inadequate information about the process change and insufficient information about the process on the work orders is:

1. Work orders that go back to the parent company made according to the earlier version of the order;
2. Orders are returned with 50% of scrapped products;
3. At the meeting related to complaints, information is received that the process specification on the work order has been changed.

The LEAN way of thinking allowed companies to define values, group operations and processes into a flow that enables the creation of user value in the most productive way, without interruption and continuous work towards the improvement of all processes (Mandić, 2019).

LEAN provides a cognitive framework for a clearer view of work, regardless of whether it is production, service or any other activity in which at its end there are deliverers - suppliers and receivers - customers. The key part of these processes is the identification of all "losses", that is, all excess "inventory" (from the point of view of the customer - user) and determining the method for their elimination.

Once defined, the loss becomes the goal that the system directs to turn the "current state" into a "future state." The basic LEAN principle is based on value creation, eliminating activities that the user is not ready to pay for, those that do not add value (Liker, 2004).

When talking about activities that do not create value, it is important to repeat that the LEAN concept is defined through 3M:

- **Muda (loss, cost):** These are activities that consume resources without creating value for the customer. These can be errors that require correction, as is the case in our example, where it was necessary to review the returned materials, move employees from one place to another without any purpose, wait for the start of the activity.
Eight losses according to the LEAN philosophy, more precisely what we want to eliminate from our processes, thus eliminating the losses of Moore and Mura, we directly affect the elimination of Mud (eight losses - wastes). Muda's seven plus one losses are:
 1. Excessive production;
 2. Waiting;
 3. Transport;
 4. Improper processing;
 5. Excessive inventory level;
 6. Unnecessary movement;
 7. Skart;
 8. Unused human potential.
- **Mura (variability, inequality):** It is a phenomenon caused by unevenness, imbalance or inconsistency. It is reflected in activities that are not accurate and consistent, where there are additional checks, retention and overtime, which can be seen in the above example. Due to the necessity of rechecking the same materials and processing them according to new specifications, stocks of unchecked materials are retained and additional hiring of employees occurs.
- **Muri** means overload, excess, impossibility or unreasonableness. Muri can originate from Mura and in some cases be caused by excessive removal of Mud (waste) from the process.

4. CONNECTION OF INTERNAL COMMUNICATION WITH THE LEAN CONCEPT

Abdullah and Hui, have found that hierarchical communication inspires employees by the way information is delivered and received.

The losses that occurred due to ineffective communication between the two companies are:

1. Control time consumption, re-control of the same work orders;
2. Cost of re - transportation;
3. Stall - returned orders are marked as urgent, the rest of the orders that have been completed in the meantime while the complaint is being defined, are waiting;
4. Complaints sent directly by the customer - directly affect the reputation of the company.

In another research, the set hypotheses were confirmed, that is, in companies that systematically manage internal communication, the evaluation of the effectiveness of internal communication is significantly higher than in companies that do not systematically manage internal communication (Hola & Pikhart, 2014).

5. CONCLUSION

Communication is necessary in almost all areas of life, from home to work. Although people are trained for certain types of communication through education, work and belonging to different groups, for example in economics or management, they do not acquire any communication skills directly. It is a social process that starts from childhood to death for us as human beings.

In any sustainable plan or strategy, communication plays a vital role, both internally and externally. To make plans and create applications for sustainable actions, people need to express themselves internally within their organization. After completing the internal function, expressing oneself outside the organization is also crucial. In short, to plan and develop sustainability and sustainable strategies, people need to express themselves internally and externally using the appropriate mode(s) of communication (Elsevier, 2017).

The basis of the LEAN concept is a defined system of communication - clear setting of processes and delegation of tasks. This approach in companies can be applied with a clearly defined system of communication between management and employees, between processes or parent company and subsidiary company.

Companies that include the management of their internal communication in their strategic management and systematically manage it, reach higher levels of internal communication efficiency. Even if management subjectively evaluates the level of internal communication, the research has its importance because managers themselves evaluate the performance of their own company (Hola & Pikhart, 2014).

Based on the mentioned problem, potential solutions can be a more clearly defined flow of information transfer through meetings that will be marked as urgent, as well as more information on work orders related to changes that occur during the process.

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