



SOCIAL ASPECTS OF THE PROJECT MANAGEMENT ON THE EXAMPLE OF IMPLEMENTING LEAN MANAGEMENT

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Abstract

Currently, many enterprises implement various undertakings in the form of projects: organizational changes, product innovations, advertising campaigns, etc. One of the organizational changes increasingly implemented in organizations of various types is the Lean Management concept. Analysis of project management results shows that about 30% of projects do not end with satisfactory results (projects are discontinued or completed). The "soft" aspects of project management are often critical to the success of projects. The paper presents the following research problem: what is important for the success of the Lean Management implementation project in terms of "soft" conditions? The aim of the paper is to present the importance of social, "soft" conditions for the effective implementation of Lean Management project and the attempt to identify the main "soft" success factors and the risks. The following research tools were used to achieve the set goals: literature studies, case studies, direct observation, interviews and questionnaire surveys. The key success factors of the analyzed project were: self-managing and committed implementation team, high competence of the team members, support of the company's top management, commitment on the client's side. In turn, the main risk factors were: lack of monitoring and control of work progress, lack of coordination of activities, lack of meetings and effective communication, lack of leadership. The presented example shows that with competent and responsible project team it is possible to complete the implementation project successfully without strong support and commitment from the project manager.

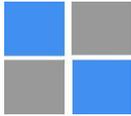
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Introduction

Many companies currently implement various undertakings in the form of projects: organisational changes, product innovations, advertising campaigns, etc. One of the organisational changes that is more and more often implemented in organisations of different types is the idea of Lean Management, the goal of which is to rationalise operations by eliminating everything that does not add value to the client. Lean puts emphasis not only on tools but also on people, thanks to which the concept's goals are implemented – that is why it is so important to pay special attention to soft aspects of Lean implementation. The growing interest in Lean Management is accompanied by a growing demand for professional knowledge and skills in implementation of this management concept. Companies are often not able to independently implement such extensive organisational changes – in such a case, they seek assistance of external consultants.

Analysis of the results of project management shows that ca. 30% of projects do not end in satisfactory results (projects are discontinued or terminated). Research shows that failure of a project is rarely a result of single factor, but rather an impact of several factors (Kandefert-Winter, 2015). This is confirmed by the results of the conducted study, according to which critical factors of project success include: effective communication, support of the management, involvement of the client, proper planning and effective monitoring and control, reporting of current progress, leadership, committed and motivated team (Nasir & Sahibuddin, 2011). Projects cannot exist without people, since they not only help implement the project goals, but also create new knowledge and experience – thus "soft" aspects of project management often become the critical factors.



The paper presents the following research problem: what is essential for the success of the project of implementation of Lean Management with regard to "soft" determinants?

The purpose of the paper is to present the importance of "soft", social determinants of successful implementation of the project of implementing Lean Management, as well as to attempt to identify the main "soft" factors of success and risk of implementation of such a project with the participation of a consulting company. To achieve the set objectives, the following research tools were used: literature studies, case study, direct observation, interviews, and surveys.

Social and organisational determinants of Project Management

The increase in the importance of projects in management is accompanied by a growing demand for professional project knowledge. The uniqueness and complexity of projects, specific dates of their implementation, defined quality requirements for the project results make it necessary to ensure efficient project management. Project management is a field of management dealing with the application of available knowledge, skills, methods and tools to achieve the assumed objectives of the project, i.e. the intended result of a specific quality, in the given time and for the agreed costs. Project management consists of five groups of processes: initiating, planning, executive, monitoring and control, as well as final (Trocki, 2014). The basic division covers three problematic areas, forming the so-called triad of project management: functional, organisational and personal problems of project management (Krüger, 1993). The dominant group of risk factors in projects consists in management factors. They are most often related to the project manager. Their creation also involves lack of proper organisational procedures, inefficiency of control mechanisms, inability to introduce organisational changes, communication difficulties (Skalik, 2009). Reasons for failures less frequently concern microeconomic or technical and organisational criteria; they are more often related to organisational culture and the sphere of interpersonal contacts (including lack of feedback) (Schröder & Diekow, 2009). Below will be discussed selected socio-organisational determinants of project management related to project teams, project manager, team motivation, and communication.

Project teams

It is assumed that implementation of projects usually requires application of a special form of cooperation, referred to as task teams. They are established to perform a specific individual task and are dissolved after its performance. The basis for becoming a member of the task team are specialist knowledge and skills. Task teams usually include representatives (or main decision-makers) of particular departments and all experts needed to perform a given task (Trocki, et al., 2003). The efficiency of functioning of project teams depends on how well particular people comprising these teams fit together. Certain general requirements concerning project team members may be indicated. According to R. Kelling (2000, pp. 108-109), these are:

- subordination to the project manager,
- substantive self-reliance and ability to work in a team,
- alignment, empathy and mutual respect.

J. R. Meredith and S. J. Mantel (2000, pp. 97-98) presented a slightly different classification of the desired skills of project team members:

- political correctness, namely the awareness of principles of functioning of the whole organisation,
- focus on solving problems (work in interdisciplinary teams),
- focus on results,
- high self-esteem.



Project implementation requires teamwork – cooperation of people with different skills. A newly appointed project team does not reach full effectiveness in operation straightaway but goes through several phases referred to as the life cycle of the team. These are: forming the team, fighting for a position on the team, stabilising teamwork, effective work (operation) and parting (thanking for cooperation and keeping contacts to co-workers) (Walczak, 2014, p. 53). P. Lencioni (2005, pp. 2009-2010) indicates five reasons for failures of group actions: lack of mutual trust, fear of constructive criticism, lack of commitment, avoidance of responsibilities, and lack of attention paid to the results. The success of the project team is also influenced by its composition (heterogeneous groups in projects enable optimal connection and use of knowledge, experience, personalities) and efficient communication.

Skills and tasks of the project manager

Literature has high expectations towards the project manager, since he largely determines the project's success. Currently, great emphasis is put on searching for a manager - leader. The project manager is expected to have the following features and skills:

- authority among project team members,
- technical (specialist) and administrative (as an effective manager) credibility,
- ability to implement management style both focused on tasks and on people,
- ability to identify problematic situations and having political intuition,
- ability to notice conflict situations in the team,
- independent thinking,
- diplomatic abilities and ability to defend own views,
- energy and consistency in action,
- respect for a different point of view of project team members,
- lack of strict control (giving autonomy)
- ability to create the atmosphere of cooperation and free information flow,
- ability to defend the project team interests and deal with various pressures,
- resistance to stress,
- responsibility and commitment (Keeling, 2000, p. 7; Meredith & Mantel, 2000, p. 107; Newton, 2015, p. 92).

The literature emphasizes the need for standardization and even certification of the skills and profession of the project manager (Ilmete, et al., 2011; Pulmanis & Bruna, 2011). Project management style should follow democratic (integrating) style. The intensity of features of this style – focus on people and the task – may be different depending on the specific nature of the project and the institutional form of its execution. Requirements with regard to management style vary in various phases of project implementation. The initial phases of defining and planning of project execution are dominated by focus on people, while further design phases – execution and completion of the project – the focus is on the tasks (Trocki, et al., 2003, p. 115).

Numerous expectations are also formulated towards the project manager. The project manager should:

- assign tasks to individual project team members,
- motivate the team and be familiar with the progress of team members in relation to the plan,
- communicate with the project team: explain and continuously update the information regarding the plan and the scope of the project, along with the progress of the project over time; listen to the team, since it is the source of the most important information, good ideas and suggestions,
- understand the appearing problems and types of risk and counteract them,
- understand the dynamics of the team and its members to plan and implement necessary interventions with regard to management (Newton, 2015, p. 34).



The task of the project manager is to lead his/her team to the stage of effective work, where the project goals will be achieved. The manager should thus, together with the client, expressly specify the project goals (they should be measurable) and determine the ways in which they should be achieved.

Motivating the project team

The project team expects the manager not only to help determine the task sequence or to solve of any emerging problems on a current basis, but also to cheer it on to achieve possibly the best results. A very important issue in project management is thus motivating project team members and ensuring good climate of work. What induces people to work in project teams? We can indicate the following motives, beyond financial motivation: prestige, friendliness, status, unusual task, opportunity to show initiative and independence. The motivating instrument may also be the possibility to learn something new and develop personally during the course of the project being implemented. In particular, the project manager should focus his/her attention on creating challenges, expressing acknowledgement and designing work. He/she should follow the following guidelines with regard to effective motivation: should be motivated and lead by example, should trust employees and give them autonomy, should quickly respond to newly-appeared conflicts (Trocki, et al., 2003, p. 122).

Motivating people in the course of the project implementation has a slightly different special character than in the case of continuous work; it consists rather in transferring enthusiasm to the employees and maintaining their involvement in the tasks performed (Phillips, 2004, p. 340). Even though, at the beginning, the project team usually is highly committed to the project implementation, this commitment decreases later on and needs to be sustained. The most common reasons for the lack of employee motivation in project teams are the following phenomena:

- criticism to which the employee cannot respond,
- indecisive management, uncertainty in execution and presentation of the project objectives
- excessively long meetings that do not end in specific results,
- looking for culprits instead of solving problems,
- excessive democratisation or excessive formalities,
- showing mistrust towards the employees, rigid, non-flexible course of the project – no possibility to implement new ideas and introduce changes,
- atmosphere of competition between employees,
- excessively high expectations
- lack of *feedback* about the employee's work (Trocki, et al., 2003, p. 123).

Communication in the project team

For the success of the project, the skills of project managers within the scope of effective communication are very important. This is confirmed by results of the study of Arras People, conducted among 1000 specialists in project management, according to which these skills are at the second place, whereas technical skills were ranked only on the 7th place. Research on factors of failures in projects show that lack of effective communication at any stage of the project life cycle may result in problems in the project and failure of the project (Kandefert-Winter, 2015, pp. 163-164). Also, the most common accusations that employees have towards project managers involve communication problems: unclear formulation of expectations, not very clear instructions and lack of constructive feedback (Frame, 2001, p. 95). Research also shows that professional communication is a significant success factor in the project (it was included in 20 out of 43 studies) (Nasir & Sahibuddin, 2011, pp. 2174-2186). The study The silence fails indicates that effective communication during the project implementation



minimises problematic areas, significantly raises effectiveness and efficiency of the implemented projects and improves their results (Kandefert-Winter, 2015, p. 168).

Thus, professional communication should apply to the whole period of project management – starting from the initiation through the phase of planning, implementation and monitoring to completion of the project. Communication is one of the vital aspects of the activity of a project manager. Photographs of the project manager's work day indicate that he/she devotes approximately 80% of time to communication during implementation of the project. Some sources state that project managers devote even approximately 90% of time to communication (Kandefert-Winter, 2015, p. 163; Phillips, 2004). Communication in the context of a project is seen not only as interpersonal communication but also as communication management in the project. Implementation of communication management involves continuous adjustment of communication management processes to the needs of the project team and the client's needs (thus it is important to learn the expectations, preferences concerning the means of communication, frequency or format) This requires continuous interaction with the project team and the client, as well as two-way communication.

Communication with the project team should consist in regular meetings organised systematically in order to assess the progress of works, discuss problems, types of risk and changes, as well as agree on what the team will focus on throughout the next period. At the meetings, employees should be able to present their ideas and submit applications regarding changes. It is worth encouraging project team members to present their reflections and critical comments. The meeting is also an opportunity to express gratitude towards co-workers for their work. The main goal of meetings is, of course, to transfer information, but they can be also used to increase integration of the team, which usually significantly reduces communication barriers (Frame, 2001, p. 95; Newton, 2015, p. 49; Walczak, 2014, p. 261). Meetings may also be informal to overcome the internal barriers in communication in the team and help solve any emerging problems (Trocki, et al., 2003, p. 124). A particularly important event is the kick-off meeting, where the whole team starts the project implementation. During the first meeting, the project manager presents his/her management style and goals of the project, its scope, scope of works, procedures, methods. The meeting is also intended to familiarise project team members with each other. The most important thing is to define the principles of joint work. It is necessary to indicate the most important milestones of the project. It is desirable for the management's representative of the organisation for which the project is being implemented to participate in order to emphasise the importance of the project (Frame, 2001, p. 95; Trocki, et al., 2003, p. 124).

Consulting projects as the basis for business operations of consulting companies

Consulting projects have the standard characteristics of a project: uniqueness, time frames, defined goal, dedicated resources. The purpose of each consulting project is to deliver value for the customer, which the customer would not be able to achieve with his/her own resources (knowledge, experience, time, etc.). For consulting projects, it is also typical that they require involvement of the client, who is more familiar with the special character of the company, the existing problems and has access to its resources (people, infrastructure, etc.). The project team thus consists of representatives of at least two organisations: the consulting company and the client. Another feature of consulting projects is the difficulty in evaluating the results of works, in particular by people outside the project. While it is relatively easier to evaluate the quality of documentation (project deliverables - expert's reports, reports), evaluation of results in the form of the desired improvements or the implemented organisational changes is not easy, and often even impossible right after completion of the project (Wickham, 2004, pp. 4-8).

Several typical phases can be distinguished in the consulting project's life cycle. The acquisition (sales) phase of the project involves the client's inquiry and development of an offer by the consulting company. If the offer is accepted by the client, it is followed by price



negotiations and, as a result, signing of a project agreement which starts the project implementation phase. The project implementation stage is, to a large extent, determined by conditions contained in the agreement: scope of the project, objectives, project deliverables, schedule of works, schedule of payments. In the project implementation phase, the client's requirements may change and usually are changed. The process of continuous change management in the project is the responsibility of the project manager and should be moderated by him/her throughout the project duration. In the implementation phase, the quality of cooperation with the project team on the part of the client is very important, as well as access to information and knowledge in the client's organisation, which enables good analysis and assessment of the situation, and strengthens the adequacy of proposed solutions. The project implementation phase ends in transfer of products of the project works and acquisition of acceptance certificates of the works deliverables by the client. This is connected with the payment of receivables by the client for the whole project or its stage if it is carried out in tranches. The last stage is the completion of the project. For the client, this stage involves acceptance of deliverables and payment of receivables. For the consulting company, closing of the project also involves the phase of archiving and collecting design documentation in knowledge bases and drawing conclusions from the project (lessons learnt workshop) (Sońta – Drączkowska, 2015, p. 131)

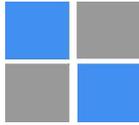
Lean Management – the essence and conditions of implementation

One of the organisational changes implemented in a company in the form of projects is Lean Management. The essence of the concept of Lean Management is reduction of any waste (Jap. *Muda*) in order to optimise company operations and, as a consequence, raise its effectiveness. The goals of LM are achieved through implementation of five principles: identification of value for the client, identification of the value stream, shaping of continuous flow, pulling of value from the next upstream activity, and continuous improvement. Lean Management refers to the Japanese philosophy of *kaizen*, which comes down to continuous improvement of all business areas of the company and pays great attention to activities in the scope of problem solving. All members of the organisation, regardless of their position therein, should be involved in improvement actions. High requirements are posed towards the chief management of the company, which should express its support for and involvement in implementation of Lean Management.

The success of implementation of LM is influenced by many factors, but particularly emphasised (as proven by studies conducted in this respect) is the importance of the so-called "soft" factors, which can give a guarantee of success in proper conditions, and if neglected - can largely limit the implementation of LM. The main factors of such nature include: attitudes and competences of employees, involvement of the management, organisational culture, management style, systematic communication with employees (Čiarnienė & Vienažindienė, 2015; Emiliani, 1998; Holtskog, et al., 2016; Taleghani, 2010; Trenkner, 2017; Walentynowicz, 2013; Ortiz, 2008; Quirin, 2015; Miller, et al., 2014).

A very difficult and, at the same time, one of the most significant conditions for the implementation of LM is creation of a cultural climate favouring continuous search for and solving of problems in the organisation, as well as improvement in all aspects of its operation. Lean requires changes in attitudes and behaviours of employees, continuous dialogue between managers and the crew, and focus on continuous improvement. The main determinants of Lean culture include: cooperation, involvement, identification of problems, reporting of improvements, small power distance, the right to make mistakes, sharing of benefits, etc.

Literature very strongly emphasises the important role of various levels of management in the implementation of the concept of LM and the need for personal involvement of the top management in activities in the scope of Lean (Liker & Convis, 2012; Stoller, 2015; Trenkner,



2016). The top management usually remains responsible for making a decision on introducing the concept of LM and presenting the vision of changes to the employees. It is impossible to overestimate the subsequent active and constant (consequent) inclusion of the management in the implementation works, delivery of necessary resources and shaping of the Lean culture. Using *gemba walking* and *shop floor management*, managers can express their support for actions related to Lean and communicate the importance of actions in this field. It is also significant for the managers to be fully familiar with what is happening at work stations and have an insight in problems that appear there.

The implementation of Lean often comes down primarily to the implementation of the basic Lean tools, i.e.: 5S, VSM, TPM, standard work, visualisation, SMED, Poka Yoke, etc. - usually in the event when the company wants only to achieve short-term results. However, it is often forgotten that implementation of tools is not enough. They are used by people, and those people determine whether and how the tools will be used by them. Thus, it is important to create Lean culture fostering the use of the principles and tools of Lean Management.

The effective implementation of Lean Management involves undertaking a number of actions. J.P. Womack and D.T. Jones (2012) suggested the following methodology of implementation of Lean Management:

- Phase 1 (initial phase) – finding a person with proper qualifications and skills to undertake activities within transformation of the company. It may be a person (team) belonging to the group of the company's employees or a person (people) from the outside, e.g. external consultants. Then, initial trainings for employees should be conducted, as well as pilot implementation of Lean in the selected process (or processes). At this stage, emphasises is put on the important role of the managerial staff with regard to supporting employees of departments being reorganised.
- Phase 2 (creation of slim organisation throughout the entire production system) – dissemination of the concept after completion of the pilot actions: reorganisation of all processes that require improvement, creation of the LM department, inspiring employees with the need for continuous improvement. The process of transformation of the organisation towards Lean involves the use of such tools as: VSM, 5S, TPM, SMED, just in time, etc. as well as creation of Lean culture fostering involvement of employees. A very important role in this regard is played by the management staff of various levels.
- Phase 3 (development of the concept) – creation of transparent communication (e.g. visual communication), conduct of specialist trainings within Lean, creation of favourable infrastructure.
- Phase 4 (final) – preparation of a consistent, global LM strategy, which can be transferred to other company branches, greater appreciation for bottom-up initiatives. The transformation ends with the appearance of Lean culture and inclusion of all employees in continuous improvement. Lean culture has a very strong impact on effective implementation of this concept. Authors state that creation of such a culture needs approximately 5 years.

Implementation of Lean Management in the company is a large project, which should be properly managed, and with regard to which the company should be aware of the presence of critical points in such a project. Questionnaire-aided interviews with 17 professionals (eight corporate managers and nine experts with PhDs in this area) show that the most critical processes in the implementation of lean projects involve procurement, stakeholders, communication, human resources, and risk management (Anhalon & Sano, 2016). This survey, based on PMI methodology, proved great importance of "soft" aspects of project management, indicating areas related to project stakeholders and communication as critical for its success.

Social aspects of the implementation of the Lean project – case study

The examined medium-sized production company represents the textile industry. In response to the increasing market needs (growth in the number of orders), the need for



optimisation of activities appeared in the company; it started to search for opportunities to increase production capacities hidden in the reserves. In 2016, the company's management board made the decision to implement Lean Management in the company. Due to the lack of knowledge and experience with regard to implementation of LM, it sought assistance of a consulting company, which conducted the initial audit. As a result of the external audit, various dysfunctions were observed, i.e.: over-stocks, stoppages, lack of synchronisation of activities, lack of effective communication, lack of space, unnecessary transportation. The implementation works were divided into stages. The first stage - preparatory actions, related to "unfreezing" the organisation, consisted in preparation and conduct of basic in Lean Management trainings (principles and philosophy of LM, 5S, system of employee suggestions, optimisation of stock management, communication) at the end of 2016. The trainings covered approximately 50 people – managers of the middle and the lowest level and specialists. Preparatory actions also involved convincing the trained group to use the new management concepts, as well as to propagate it throughout the organisation. On the whole, the new method of managing the company was met with the approval of employees, since they were aware that changes in their company are unavoidable. However, it did not mean that no concerns and doubts appeared related to the course and consequences of Lean implementation.

During preparatory trainings, the author conducted a survey study. The purpose of the study was to diagnose and assess the attitude of employees to the work performed by them, manifested in the employees noticing the need for changes, problems appearing in the department they work in and on the occupied job position, the ability to identify reasons for problems and find solutions to problems. The point was to examine the natural tendency of employees to identify and solve problems. The anonymous questionnaire, conducted in September 2016, covered 42 project managers of the lowest level (linear) who are supposed to be leaders of the changes being introduced. By the time of the study, they had not participated in any trainings in Lean Management. The results of the conducted surveys showed that in the company has a climate stimulating social for implementation Lean Management. The company has employees with positive attitude towards the work performed, who are aware of the need to introduce changes in their company, notice problems appearing in the organisation (although more people locate them in the department than on the occupied position), are able to name them, attempt to specify causes of problems, and report ideas for their solutions. The vast majority of the surveyed notice the need for improving their work and are able to specify the benefits of such actions. The study also revealed the awareness of the need for cooperation between departments and synchronisation of their activities.

The implementation phase commenced in the middle of 2017. At that time, an agreement was signed, specifying the main assumptions of implementation of the Lean Management implementation project in the examined company. The following objectives of the project were specified: preparation of VSM (the existing and target condition) for two selected, technologically diverse production processes, preparation and implementation of the employee suggestions system, and implementation of 5S. A project team was appointed, which included six consultants responsible for particular sub-projects. On the part of the company, the implementation team included a dozen or so employees (representing different company departments): project managers of the middle and the lowest level and specialists in the field of HR, OHS, maintenance, technologists, constructors, etc. The implementation team members (on the part of the company) were intended to support the implementation of Lean in their areas. The owner of the consulting company was appointed project manager. The completion date of the project was fixed as the end of November 2017. The kick-off meeting was organised, during which the project manager presented the project objectives, its scope and methods of work. The meeting also served to introduce the project team members to each other.

Then, the first works related to the project execution begun - diagnosis of the work execution at particular job positions and the course of production (VSM) Problems also began



to be discovered, constituting a consequence of the previous organisational culture, i.e. e.g. lack of support for bottom-up initiatives of employees with regard to improvements at job positions. The previous attempts at improving production and work undertaken by employees were not met with positive reception of the management, and thus employees had a very sceptical attitude towards this type of solutions and did not believe in their effectiveness. Implementation of the LM concept without a favourable organisational culture is doomed to failure from the start. The consultants were aware of this, and thus, when diagnosing the course of processes (preparation of VSM), they undertook the first actions associated with changing the organisational culture. These actions were not included in the agreement, which focused mostly on the tool side of Lean. Long conversations with multiple employees, persuading them to try the new values and standards on which Lean is based, and thereby to adopt the new attitudes already resulted in the first changes in the organisational culture, and employees began to undertake the first initiatives in the spirit of Lean. However, it was important to create the foundation in the form of values and standards binding in the company and for them to be recognised by the top management as valid. During negotiations with the top managers, the consultants were trying to convince the management that it needs to officially recognise and promote the new values and standards related to Lean, i.e.: cooperation and teamwork, multidirectional communication, reporting and solving problems, reporting improvements, continuous improvement.

A great problem and limitation during the implementation of Lean was the communication system, very poorly developed in the company. Only convincing to organise meetings and assist in their conduct facilitated communication in the company. Effective communication was also supported by the introduction of visual management. At that time, a Lean Coordinator was appointed. He was one of the company employees - a person cooperating with various company departments, well-known and well-liked, which significantly facilitated and improved communication in the company and with consultants.

The consultants - specialists in the fields of Lean and enthusiasts of this management concept - assigned to particular sub-projects performed their tasks according to the adopted guidelines. Their involvement in the project was high, since they saw the great willingness to cooperate of the company employees and treated the project as a new, important professional experience. Employees placed great trust in the consultants: expressed their problems, presented their concerns, shared their experience, suggested new solutions. This gave the consultants a great motivation to work. Particular sub-projects progressed, however, as time went on, problems started to appear, arising from the weakness of project management: lack of coordination of activities, lack of control of work progress (usually, the consultants reported the conducted activities to the project manager themselves), lack of information on advancement of particular sub-projects, problems with synchronisation of particular activities, lack of feedback from the manager about pursuance of the project objectives (e.g. praises, words of gratitude). The trouble with communication concerned not only the consultants, but also contacts with the client. The consultants responsible for particular sub-projects met with company employees during their visits, however, communication in periods between their visits was poorly organised - it was limited mainly to selective messages from the project manager. There were also no regular meetings of consultants with the project manager, who was also implementing other projects at that time. The consultants were relying mostly on themselves - and although it was not a problem at the beginning of the project implementation, along with progress of the works, they more and more often expressed the need for coordination of activities and communication possibilities under regular meetings. Finally, no formal meeting of the implementation team within the project manager was held in the course of the project implementation. In such a situation, spontaneous (informal) communication started to be used. At the end of the project implementation, the consultants decided, bearing in mind the concern for the quality and timeliness of the project, to organise an informal meeting themselves and discuss their problems and doubts during that meeting. The meeting allowed for solving



problems, clarifying various issues, and enabled coordination of further actions - and so, the project team evolved towards a self-managing team.

Simultaneously with the lack of communication and coordination, the consultants had to handle many "soft" issues related to the implementation of Lean in the company. Apart from the aforementioned need to introduce changes in the organisational culture of the company, it was a great challenge to introduce changes in attitudes of the top management staff. According to the Lean philosophy, the top management should express its personal commitment and support for the changes being introduced. The consultants began to convince managers to use *gemba walking* and *shop floor management*. These actions were not included in the agreement, but the consultants decided that without them the introduced tools (5S, employee suggestions system, new organisation of production and work posts) and solutions will not be permanent. Therefore, it was important to convince and teach managers to inspect work posts and communicate with operational employees. Initially, the top management mainly focused on fast, immediate "hard" effects - reduction of costs, increase in efficiency, etc. The consultants explained to the chief management numerous times that the effects of changes being implemented will not appear immediately - they require time, and the effectiveness of the implemented tools depends largely on the people: their attitudes, behaviour, conditions they work in, and favourable work climate. In the described case, this change in attitudes of the employees was already visible, which gave good prospects for the future.

The project was completed on time. The report presented: maps of the present condition of selected processes, conducted actions with regard to the implementation of 5S, the employee suggestions system, proposed changes in the course of production and the organisation of work posts, results obtained after the project implementation (measurable and non-measurable), results planned to be achieved in the long run, barriers disclosed in the process of designing and implementing changes, guidelines for recording the results of the project, as well as indicated conditions for increase in efficiency. The client accepted the report, expressed satisfaction with the course of the implementation activities and thanked for the results that were already noticeable; a hand-over report was signed. Subsequent actions were planned, associated with cooperation with the consulting company – audits of the introduced solutions and subsequent trainings constituting a preparation to the execution of subsequent stages of Lean implementation. Under closing of this part of the project, no meeting of consultants summarising the project was held (lessons learnt workshop) to draw conclusions from the project.

Conclusions

The success of a consulting project should be considered two from points of view: the client and the consulting company. For the client, a successful project allows him/her to achieve the objectives defined in the agreement. On the other hand, for the consulting company, a successful project is characterised by: observance of the time limits, high quality of the provided service, which affects the client's satisfaction and, as a consequence, the desire to continue cooperation with the consulting team and good references for the consulting company. Taking into consideration all the aforementioned criteria, it can be stated that the project ended in a success for both the client and the consulting company. The report containing new solutions and recommendations was submitted on time, the first results of activities appeared: functional suggestions system, new organisation of the workplace (application of 5S), new lay-out of the production process, changes in the organisational culture, increase of LM principles awareness within the management staff and the employees, growth in the employee commitment. The client signed a hand-over report and expressed satisfaction with the implementation and results of the project.



The key success factors of the analysed project were: self-managing and committed implementation team, large competences of the implementation team members, support of the top management, involvement of the client – company employees. On the other hand, the main risk factors were as follows: lack of monitoring and control of the progress of works, lack of coordination of activities, lack of meetings and effective communication, lack of leadership. The presented example shows that it is possible to complete an implementation project successfully without strong support and commitment of the project manager – in spite of the literature emphasising the importance of the manager's numerous professional skills and tasks. As proven by the example, in the case of a project team characterised by a high level of competences, responsibility, self-reliance, teamwork, attention to the results, and great commitment, the team becomes the key success factor of the project. In this case, the self-managing team became the project manager for themselves because "we are all project managers now" (Pulmanis, 2014). However, a great risk within this solution was that members of the project team had to perform additional actions that usually rest with the professional project manager and devoted additional time to those actions (sometimes at the expense of performance of their own tasks). These activities included: independent control of the progress of works, mutual motivation, agreeing on activities, dealing with doubts, reporting of solutions to any emerging problems, as well as - which is very important during implementation of the concept of Lean Management - constant contact with the client (supporting, explaining, persuading, clearing doubts). The project of implementation of Lean Management, apart from the tool-related side, should also include "soft" conditions for implementation of this organisational change, i.e.: creation of Lean culture, without which the pursuit of objectives and principles of this concept is impossible. This requires additional work and, as a consequence, additional time and commitment of the consultants. Such actions should also be included in the agreement - in this case, these actions were omitted at the stage of the project planning.

The key success factor on the part of the client was, undoubtedly, the client's large involvement in the execution of implementation work and great willingness to cooperate. Both the employees comprising the project team, as well as other employees of the company and the management staff actively participated in implementation activities. Greater effort was required to convince the management to adopt the Lean attitudes: give evidence of supporting the concept being implemented, convince to use *gemba walking* and *shop floor management*. It was a difficult project, due to the large scale of changes (apart from introduction of basic tools - also a cultural change) and the high, difficult to predict dynamics of changes (it was necessary to respond on the current basis to newly-appeared problems, which to a large extent resulted from the changing attitudes and behaviours of people). Thanks to great care for the people and tasks, the project ended in a success. The examined company is on the right path to further transformations in the spirit of Lean.

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