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Organizational culture assessment as a means of Lean Management maturity diagnosis

Introduction

Business organizations and other types of institutions are still aiming for better performance. Managers are offered a variety of tools, methodologies and models intended to improve organization and achieve higher performance indicators. Among the available concepts, the Lean Management approach seems to be the most effective in terms of achieving significant productivity improvement in a relatively fast manner. Lean Management has become more and more popular among business organizations as well as other kinds of organizations, and it is widely used across industries and sectors [Arlbjørn, Freytag, 2013, p. 175]. This popularity is mainly due to its efficiency, and because very many organizations all over the world have experienced outstanding effects in productivity and competitiveness thanks to Lean Management implementation.

Considering that Lean Management transformation is a process taking place within an organization, this study is focused on Lean Management maturity. The study assumes that in the field of organizational culture the most appropriate symptoms of Lean maturity exist. Therefore, the study aims to bring appropriate justifications as well as to formulate foundations for culture assessment as a method for Lean transformation evaluation. This evaluation would be helpful for managers in many ways, particularly in identifying further transformation paths. The thesis of this study is that in the corporate culture sphere Lean Management reflects its maturity; getting to know how far Lean Culture has developed in an organization is equivalent to finding out how in Lean transformation it is advanced. The paper adopts a theoretical approach. It takes advantage of scientific literature as well as published business case studies and guidelines. The output of the study is a framework for a Lean Culture assessment methodology.

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1. Lean Management foundations

First of all, there are very many definitions of what Lean Management really is. Lean Management is treated as a collection of management tools, a management system, and very often as a philosophy or ideology. Arlbjørn and Freytag [2013, p. 175] state that there are many interpretations of Lean Management, which range from a focus on waste elimination, utilising operational tools, and implementing specific production-related principles, to identifying conditions that are linked to the product and/or the service, and the predictability of demand and its stability. Lean Management shortly named as Lean is often distinguished from Lean Manufacturing (or Lean Production), the latter one is considered as the collection of practical management tools, if it is combined with Lean thinking it becomes just Lean Management [Hines et al., 2004, p. 995].

According to a fundamental book of Lean by Womack et al. [1990, p. 13], Lean Production is lean because it uses less of everything compared with mass production – half the human effort in the factory, half the manufacturing space, half the investment in tools, half the engineering hours to develop a new product in half the time. Rymaszewska [2014, p. 989] explains Lean in a similar manner. According to her, the idea of Lean can be summarized in a simple and short definition: „doing more with less.“ The idea of more effective utilization of a company’s resources is probably the most often mentioned aspect of Lean in the literature, but this definitely does not exhaust what is going on in this management concept.

The Toyota’s system is treated as an unsurpassed model of Lean Management. Authors very often analyse Lean from the point of view of what Toyota really does in its facilities. The Toyota Production System is defined as a system designed to eliminate waste in every area, extending from production to customer relations, product design, supplier networks and factory management [Karim, Arif-Uz-Zaman, 2013, p. 170]. These authors also state that the Toyota Production System is targeted to incorporate less human effort, less inventory, less time to develop products, and less space in order to become highly responsive to customer demand while producing top quality products in the most efficient and economic manner possible. The specified advantages are very typical effects of Lean, and they are very often achieved only a few years after the beginning of the Lean journey. Peter and Lanza [2011, p. 694] point out, as the main reasons for applying Lean Management, cost reduction, a lower level of parts’ defectiveness, and the improvement of delivery reliability.

Some more effects of Lean implementation are as follow: lead time reduction, workers' participation, customer satisfaction, machine breakdown reduction, better inventory turnover and quality improvement [Dibia et al., 2014, p. 695].

Another crucial element of Lean is streaming – production stream and value stream. According to Shah and Ward [2003, p. 129], to create a streamlined high-quality system that produces finished products at the pace of customer demand with little or no waste constitutes a core thrust of Lean Manufacturing. The value stream is the essence of the frequently cited five Lean principles by Womack and Jones [1996, p. 17]. The first principle argues that a company should understand comprehensively what a product's value means in customers' eyes. The second one says that the value stream should be determined among the departments of the company. The next one announces that the value stream is necessary to be leaner and leaner through waste elimination. The fourth principle recommends reorganizing the stream as timing in the rhythm of the demand. The final one suggests an unfaltering striving for perfection.

And finally, Lean Management is often associated with muda and Lean tools. Muda is the specific understanding of waste existing in a company. This is a hidden kind of waste, because in a traditional mass production system it is not considered as waste. Muda is anything other than the minimum amount of equipment, materials, parts, and working time that are absolutely essential for production [Taj, Berro, 2006, p. 334]. The Lean tools are widely known within the manufacturing sector, for example: VSM – value stream mapping, 5S, A3 report, OPF – one piece flow and Poka-Yoke.

2. The essence of corporate culture

Corporate culture has been a widely discussed topic for several decades. But at the same time corporate culture is a very complex term, and it is difficult to define its prodder and content in an accurate manner [Groseschl, Doherty, 2000, p. 16]. The corporate/organizational culture is very often conceptualized by using the metaphor of an onion's layers, where at least three layers exist: behaviour, values and basic assumptions [Groseschl, Doherty, 2000, p. 14]. Behaviour constitutes the visible layer, this is explicit culture. Values form the implicit culture; the basic assumptions are the core of the corporate culture. In many studies on corporate culture the values constitute the focal point, and many studies have been

organized around the discovery of values. Hofstede [2000, p. 44] states that values are unconscious and conscious feelings which manifest themselves in human behaviour. Values differ in terms of intensity and direction.

According to Schein [1992, p. 9], organizational culture is a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, and which has worked well enough to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. Others additionally state the importance of meanings, symbols and cultural artefacts as corporate culture ingredients [Iglesias et al., 2011, p. 633]. Sułkowski [2005, p. 149] underlines the ambiguity of the organizational culture concept, this is meant in many ways and researched from many different perspectives. Following his systematic this study considers the organizational culture as the models and patterns of behaviour typical in an organization, this meaning also includes employees' mental programmes. Despite the fact that corporate culture is not an entirely unambiguous concept, Lean Management is so widely presented in the literature output that it is possible to identify its culture components.

3. Lean Culture: corporate culture in Lean Management

In scientific articles on Lean Management authors often mention Lean philosophy [Bhasin, Burcher, 2006, p. 56; Papadopoulou, Ozbayrak, 2005, p. 784] as the immanent component of Lean. The philosophical aspect of Lean is important because „a philosophy” means values believed in and shared within an organization. According to Bhasin and Burcher [2006, p. 56], Lean philosophy means that Lean is not a kind of final state to achieve, but a journey on which a company needs to go. This is the roadmap to global manufacturing excellence [Papadopoulou, Ozbayrak, 2005, p. 784]. It is supposed that the vision of an unswerving pursuit of excellence forms one of the fundamental values of Lean Culture.

Starting a Lean Management project in a company is the beginning of the so-called Lean transformation. Lean needs in-depth transformation in all spheres of an organization, and this requires distinctive leaders and strong leadership. Dibia et al. [2014, p. 694] clearly express that the Lean transformation should not be limited to Lean tools and techniques, because the primary factor in Lean implementation is leadership. Albliwi et al. [2014, p. 1012] present a Lean failure list. Lack of top management commitment and involvement are at the top of this list.

The operations of a company organized according to In Lean Management differ from the operations of a typical, traditionally organized company. This goes hand in hand with the values which are held throughout a company. Patterns of thinking together with patterns of human behaviours are the fundament of organizational culture [Sikorski, 2002, p. 2]. According to Liker [2004, p. 34], attention to waste identification and elimination, as well as organizing all things around value streams are indispensable in Lean Management. These have a strong cultural connotation, aimed at waste elimination becoming a shared value, as well as organizing all activities around the stream.

The organizational culture is also important for all involvement activities [Bhamu, Sangwan, 2014, p. 918]. The whole Lean construction is based on the widespread commitment of all employees. Conclusions from in-depth research by Rymaszewska [2014, p. 999] state that employee empowerment is a challenge when implementing Lean in an organization. Emiliani and Emiliani [2013, p. 420] warn that the absence of „respect for people” by senior managers indicates that they are not practicing Lean. The implemented selection of Lean tools and techniques without respect for people by top managers means that in a company „fake Lean” eventually exists.

This study considers Lean Culture as composed of values of continuous efforts to improve and strong leadership throughout the organization. Lean Culture is rooted in consecutive waste elimination, and driven by the demand value stream. Lean Culture is padded by respect shown to people by managers. It is indeed a component of a whole corporate culture existing in a given entity.

4. Why have an eye on culture, Lean Culture?

In the literature there is a great deal of research on Lean Management transformation, which has assessed Lean advancements in companies. According to Camacho-Minano et al. [2013, p. 1099], almost all these studies use a theoretical checklist of Lean practices. They are focused on TQM practices, JIT, Lean instruments in the production stream, and similar. On the other hand, our knowledge concerning Lean transformation in a wide variety of companies implies that Lean Management’s development trajectory is absolutely unique in each organization [Lewis, 2000, p. 959]. Companies usually take generic initiatives and implement various combinations of different tools and techniques. Therefore, when aiming to as-

sess Lean transformation advancements, one should not be focused on the implementation of Lean tools and techniques, but instead should look for different signs of Lean maturity.

According to Henderson and Larco [1999, p. 463], among many Lean components corporate culture is the most important one. Ingelsson and Mårtensson [2014, p. 465] state that to succeed in Lean it is important to focus on changing the organizational culture, along with adopting a long-term view. Similarly, other Lean researchers believe in the primary importance of establishing a corporate culture dedicated to continuously fostering customer satisfaction [Karim, Arif-Uz-Zaman, 2013, p. 171]. Liker [2004, p. 146] deems that corporate culture is a result of, as well as an enabler for sustainable and successful Lean operations.

5. Assumptions for Lean Culture assessment

The deliberations above allow the conclusion that to get to know the advancement made by an organization in the Lean journey it is advisable to have a close look at its organizational culture. It would be a universal approach for the determination of Lean maturity in an organization. To which extent the company's culture includes what is called Lean Culture, to such an extent that the company has been allowed to transform itself into a Lean organization. The assessment should consider the following cultural values:

- continuous improvement,
- clear leadership,
- waste elimination,
- organization of a value stream, and
- respect for employees.

Real Lean transformation eventually leads to changes in performance measures. As Bhasin [2011, p. 986] observed, there are strong relationships between Lean values and business performance. In Lean Management it is symptomatic that companies usually obtain a typical set of process performance indicators' improvement. All of them are closely related to the process's productivity. So it would be reasonable for an organization to consider the scale of changes in these typical Lean indicators. Lean Culture exists only in conjunction with the accompanying productivity indicators; growth becomes evidence that the Lean Management approach is working appropriately.

Lean Culture assessment is valuable only if it provides precious feedback to an organization about what level of maturity there is, and where there are deficits in Lean transformation, as well as what the further priorities and directions on the Lean journey are. For such an instrument a set of comprehensively described criteria is required, i.e. a clear and easy scoring system, which would allow easy balancing of the organization's real state. The self-assessment approach is advisable, prepared in such a manner as to allow individual and team usage within organizations.

Conclusion

Like the captain of a ship needs a map and compass to find an appropriate sea route and stick to this route, managers need support in the Lean transformation journey. They need to understand the distances they have travelled, and know the best routes for the future. Having available the portfolio of Lean Management assessment instruments, the study proposes to base itself on organizational culture in Lean advancements assessment. This approach can provide a fresh view of the Lean transformation process, and potentially provide very valuable feedback to managers, particularly, when we take into consideration that Lean Culture is the most sensitive Lean component. There is a strong argument that in the corporate culture sphere some missing pieces of the Lean machine exist.

In markets where Lean Management is still a kind of novelty, the expected advantages of Lean Culture assessment are even bigger. For instance, in the post-communist countries the corporate culture is very often a mixture of national business traditions, owners' self-teaching, and western bureaucracy standards. Lean Management is often perceived as another incoming novelty; and is spontaneously perceived as a big toolbox for productivity improvement. Therefore, Lean does not bring such striking effects as have been expected – precisely because of unchecked corporate culture.

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Organizational culture assessment as a means of Lean Management maturity diagnosis (Summary)

The aim of this study is to design the foundations for corporate culture assessment as a method for Lean transformation evaluation, and to justify the legitimacy of such an approach. The study assumes that in the field of corporate culture the most appropriate symptoms of Lean maturity exist. The evaluation of Lean Culture are helpful for managers in many ways, particularly in the identification of further Lean transformation paths. Lean Culture assessment should consider the following cultural values: continuous improvement, clear leadership, waste elimination, organization of the value stream, and respect for employees. Lean Culture assessment should be accompanied by Lean performance indicators.

Keywords

Lean Culture, Lean Management, Lean maturity

