

Aneta Jakonis  
Społeczna Akademia Nauk

## Cultural conditioning of LEAN MANAGEMENT – continuation of the research

### **Abstract**

*The article is the continuation of the topic of cultural conditioning of Lean Management. In the first part the basic foundations of Lean Management were presented. Then the author mentioned the connections between national and organisational culture and made thesis that the culture of organisation influences the process of Lean's implementation and functioning. In the second part of the article the culture of Japanese, Polish and Mexican organisations were characterised and compared. And it was pointed which out of these features can be helpful or disrupting in effectiveness of Lean Management. The comparison of different organisational cultures and Lean Management implementation is pointing out the possible connection between these two fields of management. Which can be seen as cognitively innovative and practically useful study.*

**Keywords:** Lean Management, organisational culture, national culture, cultural conditioning of Lean Management

### **I. Introduction**

This article presents the author's analysis of cultural conditioning of Lean Management. In the first part the basic foundations of Lean will be presented. Then the connection between national and organisational culture will be described. In the third part the author will try to analyse if and how cultural conditioning can influence the implementation of Lean philosophy. The assumption made in this article is that cultural differences can be the explanation of differences in Lean implementation and functioning. This assumption was made on the basis of the literature of the subject and professional experience as the trainer

and consultant helping to implement Lean Management in organisations situated in different parts of the world as Central Europe (Poland) or North America (Mexico). The first research, presented in a previous article, showed the differences between Japanese and Polish organisations. In this article the Mexican organisational culture's description has been added.

## 2. Basic foundations of Lean Management

Lean Management is the result of tens of years of work made by Taiichi Ohno and his team in Toyota's factories, which as well as the rest of Japanese motor industry had to struggle with global competition after II World War [Ohno, 1988]. The main Japanese competitor was United States of America – mass production leader. As T. Ohno said: at the beginning there is a need [Ohno, 1988, p. 15] and this need to become more competitive and to produce cars of the highest quality and lowest cost and according to client's requirement, was the reason of changes in Sakichi Toyoda's factories. The result of this was the completed and effective management system known as TPS - Toyota Production Systems, later on as a Lean Management system.

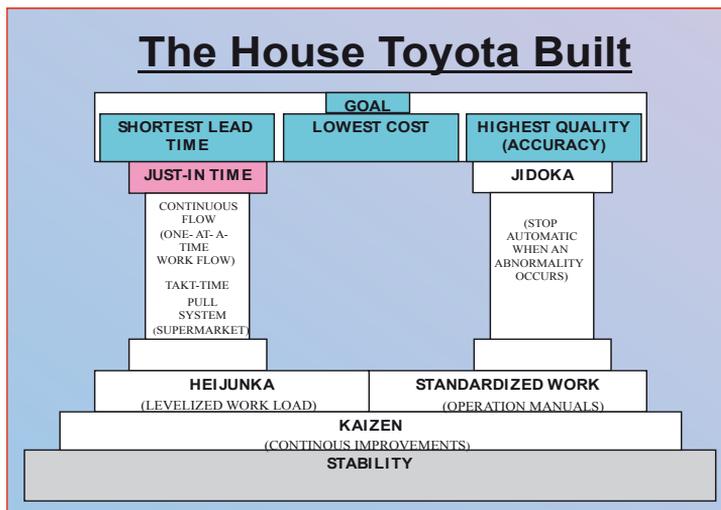
Lean is the attitude to management, philosophy, or a state of mind [Dennis, 2002, p. 17], thus implementing Lean has to be based on shaping the attitudes, new habits and teamwork. It was quite simple to do for Japanese industry I suppose, because of specific cultural conditions, which are basic for Lean, for example responsibility or synchrony. And as well as the main feature: avoiding the waste, which is understandable for Japanese, whose natural resources and territory are tight and there is not a lot to waste, actually. The other attitudes common in Japan are: respect to authorities, hierarchy or ritualistic culture [Konecki, 1992], which support Lean as well.

Lean means thin [Lichtarski, 1997, p. 224], so the core of Lean Management is getting the organisation thinner by reducing the waste and getting the highest quality. "True efficiency improvement comes when we produce zero waste and bring the percentage of work to 100 percent" [Ohno, 1988, p. 19]. According to T. Ohno the main sources of waste in organisation are: overproduction, waiting, transportation, processing, inventory, movement and making defective products [Ohno, 1988, pp. 10–20]. Overproduction means that we produce more than we need and is the reverse of Lean production – production of the exact kind of items, at right quantity and at the time needed, according to client's order. Waiting for components, wrong orders, delays or bad organisational work are the next sources of waste. Transportation is about the size of a batch, which should be the smallest as possible and delivered as frequently as possible. The organisation of transport within organisation is an

important issue as well, for example sequence, standardization or fixed routes can improve the process. Excessive inventory is another big source of waste and is connected with non efficient organisation of warehouses, dead stock, bad location system or lack of levelled production and big batches. Wastes in movement can be found in logistic or organisation of production, which can be based on too much procedures or excess of control. And, at the end – defect product, which means poor quality, defects, etc.

Lean is based on two main pillars – one is *Jidoka* which focuses on high quality and the second - production system called *Just In Time* which is based on producing the needed parts, on time and in the quantity needed [own resources] and is contradictory to mass production called *just in case* [Schonberger 1982, p. 16]. The rule: do more using less means highest productivity with using less materials, workforce, machinery or effort. This is the main rule for all Lean Management directions: Lean Manufacturing in production industry and Lean Office [www.leanvision.com.pl] for example in administration. In this article we focus on production and services areas using interchangeable: Lean Management and Lean Manufacturing. The basic foundation of Lean Manufacturing can be shown on the below drawing known as Toyota's house [own resources].

**Drawing no.1:** The House Toyota Built – characteristic of Lean Manufacturing



Source: on the base of Dennis, P., 2002. *Lean Production Simplified*. Productivity: New York, p. 18.

The basic foundation of Lean Manufacturing is stability so as stable, repeatable organisational processes. This foundation enables continuous improvement known as *kaizen*, which is connected to teamwork [Dennis, 2002, p. 104] and allows getting to the cause of problem and eliminating it. One of the most important tools for continuous improvement is 5S, which helps to keep cleanness and order in the workplace [Dennis, 2002, p. 29]. 5S means:

1. Sort – divide things into two groups: necessary and unnecessary and throw away all unnecessary items.
2. Set in order – find the place for everything and keep it on its place.
3. Shine – clean and polish because cleaning is inspection at the same time.
4. Standardize – set the rules of control and implement them into your every day routine.
5. Sustain – make these rules a routine and develop the support for them [Dennis, 2002, pp. 29–36]. Some researched organisation implemented the sixth “S” – Safety, which means avoiding accidents, making people aware of safe work and working in a safe way. What interesting, in Toyota’s factories safety is one of a priority of work as well and the sign of a high quality and a “good business” [Dennis, 2002, p. 141].

Next element of the Toyota house is *Heijunka* and standardization. *Heijunka* is the system of levelling the production [Dennis, 2002, p. 69] through the levelled pace of work and levelled batches of product. Levelled production according to both: quantity and variety of goods, helps to stabilize the organisational processes and to avoid waste. Standardisation is seen as a base of waste elimination [Ohno, 1988, pp. 22–23], as well. Standard should be based on the best possible method of work and should be permanently improved over the time to match internal and external changes.

*Just In Time* means that in the process “the right parts needed in assembly reach the assembly line at the time they are needed and only in the amount needed” [Ohno, 1988, p. 4]. Basic rules of a such productions are: don’t produce anything which wasn’t ordered by the client, level the production, use the basic visual standards of control and maximize efficiency according to people and machinery [Dennis, 2002, p. 66]. JIT can be supported by: continuous flow (one-at-the time work flow) [Dennis, 2002, pp. 67–68, 141] or takt time (the time to produce one unit, required by the client).

Next important tool is *pull system*, which is the production system and it is being started by client’s order [Ohno, 1988]. The goal is to store only a minimal single batch in the dynamic *supermarket*, to be prepared to fulfil client’s order and to start filling up the *supermarket* when the batch is being shipped. So it is a reverse direction in comparison to classic mass production, where the finish good is made from single components according to the plans and store in the

warehouse waiting for the possible client's order. Due to Lean Management, warehouses should be reduced as much as possible and turned into small dynamic storages, known as *supermarkets* [Dennis, 2002, p. 147]. That is why in *pull system* the sell is the signal to produce. This is very effective system, which eliminates waste and stores, but at the same time the system is very sensitive and requires from employees high level of concentration and quick reactions. And it requires fast information/ goods flow, so the *kanban* cards can be used in here [Ohno, 1988, p. 36]. In the Polish organisational practise the sensitivity of pull system is taken as its disadvantage, which can be consider as one of cultural barriers in Lean implementation.

Next pillar of Lean building is *Jodika*, which means stopping the process/ machine if a problem occurs. *Jidoka* is built into quality control and is used to produce without defects [Dennis, 2002, p. 89]. It is known in Toyota as *autonomation* ("automation with a human touch") [Ohno, 1988, p. 4]. *Jidoka* requires the top management support and leads to production of goods without any defects (the highest quality). With all of the described above tools, we can have delivered the shortest leadtime and the highest quality of the product, so as we can realize the main Lean Management' s goals.

### 3. National and organisational culture

On the basis of author's research there was made a thesis that implementation, functioning and the employee's attitude to Lean Management can be dependent on cultural conditions. By the cultural conditions, I mean mainly the culture of the organisation, but with the assumption that this culture is shaped by national culture of employees and the country where the organisation is placed.

There is a lot of different definitions of organisational culture as well as national one. We can say, that organisation is a culture, or that it has got a culture, or that "culture" is just a word, which has been given the meaning by people so is not a thing, which can be researched [Zbiegień-Maciąg, 2002]. According to Edgar Schein theory, the organisational culture is "group of rational rules of action, which are uncovered, set up and developed by the group and they are used to deal with the problem of internal integration and external adjustment and because they act well, they can create the ways of thinking and feeling for their members" [Zbiegień-Maciąg, 2002, p. 16]. So organisational culture is shown here as existing in people's minds and emotions, as something what is shared and regulates group life so it can be describe as a process [Schein, 1986]. It is "deep set of factors, which can be influenced if it can be diagnosed properly" [Kostera, 2003, p. 31] as well. These factors are: artefacts, values, norms and basic cultural assumptions. Artefacts can be for example: language,

stories, myths, habits, ceremonies, rituals or symbols, technology, logo, office's organisation, design etc. Values and norms describe the way of acting and behaviour, which is seen as acceptable and allowable. They are partially visible and partially hidden or even subconscious. The last element – basic cultural assumptions – is invisible and unconscious basics of organisational culture [Zbiegień-maciąg, 2002, p. 22]. It can be: attitude to environment, nature of reality, time and space, human's nature, people's interactions, motivation, perception or emotions [compare: Stoner, Wankel, 1997]. This is the deepest, the most permanent and the most difficult level to be known, even by its creators and participants.

National culture heavily influences the organisational culture. It can be explained because of the assumption that people create according to their attitude to the environment, the way they can see reality and human's nature [Zbiegien-Maciąg, 2002, p. 22], and these norms and values are the part of national culture. So the artifacts and norms can be global but when we come down to the level of values and basic assumptions about "reality" – the national culture determines what will be built at the roots of our organisation. Furthermore, if we assume that organisations are open systems, then there is diffusion and value's transfer between the culture of a organisation and the culture of the nation within which the organisation functions. "In the long time period we can observe evolution of organisational culture towards the values conformable with the context of this society's culture" [Sułkowski, 2002, p. 8].

George Borden, the author of the model of multicultural communication, said that humans raised in certain culture are given certain mental programmes. So we can describe the culture, when we look at this mental programmes and styles of communication, which are different in different cultures. Cultural axiom of G. Borden assumes that efficiency of multicultural communication depends on the understanding the culture of forwarder and consignee in the physical, psychological and linguistic sphere [Borden, 1996].

According to Ch. Hampden-Turner and A. Trompenaars theory, national culture determines the work culture as well. National culture influence organisational cultures and is the base for value's systems, which can create the wealth [Hampden-Turner, Trompenaars, 2006]. So when we research organisational cultures as the effects of national culture's influence, we can see interesting differences in organisations. These differences can influence that for example the management system created in one culture, can be seen as troublemaking and hard to implement in the other one. And the effectiveness of the system is not depended on the features of the system, but on cultural conditions, which are varied – more or less compatible with the system.

Summarising, we can assume that organisational culture grows from the national culture, the place of origin, core values and basic cultural assumptions

of each society and members of this society. If the organisational culture is the reflection of national one, so the ideas, management systems and innovations within organisation have the highest chances to develop in its origin culture. So can we implement the idea created in one society to another one, totally different nation? In the literature of the subject we can observe avoiding the opinion that it is impossible. There is more voices saying that we can do that but we have to adjust it to the specific cultural conditions, for example in the stage of implementation [www.zie.pg.gda.pl]. The thesis of this work is that if we implement the idea created in one culture to the society of a different culture, we can face a lot of unexpectable problems. Implementation is possible but it can be much harder to make because of different attitudes, change resistance, lack of understanding of the basics etc. It needs much more attentiveness, patience and knowledge about cultural differences of the nations, so the understanding and the goal's achievieng can be possible.

#### **4. Lean Management and cultural conditioning in Japan, Poland and Mexico**

In my opinion the organisational culture depends on national culture, and these cultural conditioning influences the Lean Management implementation and functioning in organisation. By cultural conditions I understand the internal (nationality of the employees) and external (country where the plant is situated) cultural environment/factors. Cultural differences will be characterized with the model of culture with seven dimensions developed by Ch. Hampden-Turner and A. Trompenaars. They described 7 different ways how the individuals behave to each other, what is a value for the enterprise and how they create wealth. All the cultures they researched brought different values to create the wealth, which determine both: the character of organisation and the character of its product/services [Hampden-Turner, Trompenaars, 2006, p. 14]. The authors described 7 values systems creating wealth, based on the dichotomist dilemmas [www.en.wikipedia.org]:

1. Universalism vs particularism: attaching great importance to the observance of rules, using certain absolutes to apply, regardless of circumstances or particular situations vs depending every situation on the circumstances, treating every situation and a person as an unique.
2. Analysis vs synthesis: the way people perceive – by putting all elements together or separating them [Hampden-Turner, Trompenaars, 2006, compare: Trompenaars, Hampden-Turner, 1998].
3. Individualism vs collectivism: quick decision-making process, responsibility of individual, competitiveness vs collective decisions and communitarianis.

4. Internal vs external control: making decision on the base of our own opinions, having the sense of being in control vs seeing action as a product of the external, mostly unpredictable conditions.
5. Sequential vs synchronic: feeling time as a series of passing events, acting according to the strict schedule vs tracking various action in parallel, seeing the connection between past, present and future events.
6. Achievement vs ascription: describing the position of the worker because of his/her performance vs the factors like hierarchy or seniority.
7. Equality vs hierarchy [Hampden-Turner, Trompenaars, 2006, compare: Trompenaars, Hampden-Turner, 1998]: treating everybody as equal or placing people in the set hierarchy. The study of the cases is based on the Polish version of the authors work [Hampden-Turner, Trompenaars, 2006, pp. 15–20], so that is why the dimensions described in Polish publication are used in this work.

In the next part of the article I will try to compare one of the capitalistic culture described by the authors – Japan – to organisational culture researched in Polish and Mexican subsidiaries of a global organisation and small Polish service's company. Polish companies were researched on February – May 2011. There was 30 interviews made, the direct observations and the test of questionnaire which tends to be used in further research. Than the Mexican subsidiary was researched in August – September 2011. There was 12 questionnaires and 10 interviews made. The number was lower than in Poland because of the language barrier (Spanish speaking staff, the research could be made only with English speaking persons).

If about universalism – particularism (general rules vs particular accidents) [Humpden-Turner, Trompenaars, 2006, p. 30], Lean Management is particular, for example because of the organisation of the production *Just-In-Time* or the idea of *kaizen*. Japanese culture has particular characteristics and it is described as the culture of the points of view, with the harmony of individual accidents and respect to individuals [Humpden-Turner, Trompenaars, 2006]. So the *Just-In-Time* production is a good solution for the industry, where one has to satisfy variety of individual's needs [Liebowitz, Margolis, 1995]. Next thing is the kind of bond called *honne* – spiritual closeness between people, full of harmony and loyalty [Hampden-Turner, Trompenaars, 2006, p. 115]. This bond is placed to the business relations as well, so there is high importance given to close relationships, understanding and respect to individuals in business [Konecki, 1992]. We can observe particularism in Japan in the variety of produced goods, which are going to satisfy different consumer's needs, or achieving the highest quality, or in other management tools like for example 5 x why. 5 x why is the method used in Toyota and its goal is to force individuals to ask at least

5 questions why do we have such problem? [Hampden-Turner, Trompenaars, 2006, pp. 116–130]. So, Lean philosophy is very much connected to the basic Japanese cultural assumptions of working and achieving goals.

In Polish subsidiary the result was the strong universalism: 24 out of 30 people said that they always obey organisational rules, only 6 have individual attitude to the client. The observations showed that most people like their routine of the day: new employee is asking what the rules and procedures are at the first place, different rules for different people causes frustration and the individual client's needs are seen as a disorder rather than a challenge. Almost everybody answer that if they notice drunk coworker, they would immediately report it to the boss, but we have to remember that some opinions said in the workplace can be different that the private opinions (Japanese *tatemae* vs *honne* – which is official and proper vs private and nonformal) [Konecki, 1992]. Universalistic attitudes could be the obstacle in Lean implementation, mainly because it can be hard for people to understand the basic foundation of this management concept. So Lean implementation requires deep organisational change – change of attitudes, working on such values as respect or proudness, so for example 5S can be introduced. Without understanding and internalising, Lean cannot be actually implemented and it cannot be efficient.

In Mexican subsidiary there were mostly universalistic attitudes, which was very surprising because according to the authors Mexico has a particularistic culture [Hampden-Turner, Trompenaars, 2006]. Maybe the researching tool was not accurate enough or there were some language misunderstandings. So it should be researched further in the future. If about the results of the research, all of the employees said that they follow the rules and procedures in every case, there was nobody who admit individual attitude to client, task or project. 11 out of 12 people said that when they notice that their co-worker is acting against organisational rules like he/she is drunk, lazy, acts against safety procedures or others, their reaction is to inform their boss immediately. There is possibility that the answers were the formal opinions and they differ from the private values of the workers, but there was no access to the private sphere of the employee's lives. Another explanation can be the high level of dedication to work, which is very valuable in this country, so giving “the right” answers can be seen as protective but natural as well.

Next dimension: analysis vs synthesis (deconstruction vs reconstruction) [Hampden-Turner, Trompenaars, 2006, p. 40] situates Lean Management on the second end of the scale. Synthetic attitude to work is the core of flexibility, fast reaction for changes and the teamwork. And it is much closer to Lean Management because of the character of this concept (connections between people, reliance and responsibility) as well as effectiveness and the basics of *pull system*, which was described above [compare: [www.lean.org.pl](http://www.lean.org.pl)].

Japanese are synthetic, which can be shown for example in negotiations: they do not like to go to the point quickly, avoid formalisation and try to build the connection between sides. They like flexibility in the contracts and take care for long-lasting relationships [Hampden-Turner, Trompenaars, 2006, p. 134]. The next important value in business for Japanese is reliance, which is based on opened communication and strong cooperation [Konecki, 1992].

Polish workers choose mostly analytic orientation. 19 out of 30 analyse new projects piece by piece, when 11 try to connect all information in a bigger whole. Analytical attitude is shown in the style of negotiations as well, which is similar to the American style: high level of formalisation, signed agreements, short-term contracts. So there is not a lot of reliance in relations as well. About 70% of people described their organisation as a machine whose goal is to make profit (analysis) and 30% - as an organism which takes care of its employees' well-being (synthesis). Analytic orientation is in my opinion another obstacle in Lean implementation, mainly because of possible difficulties in understanding the basics of Lean philosophy.

In Mexico the opinions were split down the middle: in the first question there were more analytic comments, in second - synthetic. So if about the employee's attitude to new projects 7 out of 12 people said, that they analyse information one by another (analysis). But 11 of them compared their organisation to the organism, which takes care of its employee well-being (synthesis). So if about the research, the results were not clear to situate the culture on the one or another end of the dimension's scale. In literature, we can find the results of the research [Hampden-Turner, Trompenaars, 2006, p. 146] in which Mexico is presented as the country of short-term attitude in planning. It is situated by the authors on the 24<sup>th</sup> position out of 30 countries researched in according to long-term planning orientation. This low position can lead to the conclusion of more analytic attitude of Mexican workers.

Next dimension is individualism vs collectivism and is showing the importance of individual's benefits or the group's benefits [Hampden-Turner, Trompenaars, 2006, p. 65]. As it was described above, collectivism, cooperation, teamwork etc. are one of the most important foundations of Lean Management and the basis of its effective implementation in the organisation.

Japan is a group-orientated society, which praises obedience to authorities and sustain capitalism which Lester Thurow called communitarian capitalism [Fukuyama, 1997, p. 40]. Geertz Hofstede called it Confucian dynamism, which means long-term attitude to life and behaving in a good, proper way to each part of a social group [Fukuyama, 1997, p. 249]. Confucianism is about collectivity and communitaristic attitudes like making profit for the wider social group, promotion of senior workers, respect for supervisors and paternalism

[Konecki, 1992]. Many authorities say that collective organisational culture was one of the major factors for Japanese economical success [Zbiegień-maciąg, 2002, pp. 26–27]. Cooperation can make the work easier, requires less control and is more developing for workers [Hampden-Turner, Trompenaars, 2006, p. 136]. Teamwork in Japan is built for example by organisational rituals like gathering at the beginning of work, quality circles or following rules of etiquette [compare: Konecki, 1992]. Some other rules which sustain belonging to the group are: uniforms or common space for managers and workers [Hampden-Turner, Trompenaars, 2006, p. 65], participation, responsibility and loyalty, which build the connection with organisation [Hampden-Turner, Trompenaars, 2006, p. 69] or working in the same company all professional life long [Konecki, 1992].

The research in Polish subsidiary gave dissonant results, so the individual and collective attitudes at the same time. 24 out of 30 said that they prefer cooperation than competitiveness, but according to observation, there was no teamwork, but rather the fulfilling of individual interests and competition. Like Lean implementation, which appeared to be difficult to implement because of the lack of cooperation within departments and lack of a wider view at the organisation as a bigger whole. There is not a lot of pride from the workplace and belonging to organisation as well. If about the other question, more workers said that they are going to work for this organisation only as long as it is going to fulfil their needs, which is highly individualistic attitude.

In the Mexican subsidiary the answers were heading towards collectivism. The majority of people said that in human resource management in the organisation the most important is the interest of organisation as a whole. If about recruitment, the most important value was the cooperation and matching to the group (10 out of 12 researched employees). 7 people said that they would like to work in this organisation all their professional life, what is the strong collectivistic attitude. The observation confirmed these results. All the workers looked like cooperating as a team, even at the beginning of their employment they have created this team on their own, so the team – building exercises were only additional factor in the human resource management process. Another interesting phenomenon was strong orientation to the group and importance of matching to the group. All the individuals who had different values than the group, slightly different opinions or egoistic ambitions, were excluded from the group firstly in non - formal way, and sometimes in the formal way by derecruitment as well.

Internal vs external control is about the way of making decisions, which can be based on our own opinions vs on the external world's trends. We can say that this dimension shows that people can have control of their activities and have

influence on reality vs that their actions depends on uncontrollable external factors [Hampden-Turner, Trompenaars, 2006, p. 72–73]. In my opinion, Lean Management is more like Japanese external – controlled organisations. We can observe that in production system which is very sensitive to external and internal changes, elasticity of the standards or continuous improvement and being ready to react quickly and adjust to external conditions is more important than just planning and realising the plans.

In Japan external control is the most common attitude. In Polish subsidiary there was mostly internal control pointed (26 out of 30). Similar results I received in Mexico, where the employees make most of their professional decisions on the grounds of information from management, co-workers and their own judgement (12 out of 12). When they are planning, they always know that they have influence on the proceedings and they can realise their plans (9 out of 12). So we can say they present the high level of internal control, which can be connected with the historical and social conditions of their country as well. In my opinion both attitudes can support Lean Management. External control and obedience to authorities in Japan is a strong control factor for any managed change. Internal control, when connected with strong motivation to improve, can be driven factor as well to implement and sustain Lean Management system. The only concern can be too high connection to the plans which have been already made and small flexibility in action.

Sequential vs synchronic attitude means that we can act quickly and do our jobs in a set order or we can do a lot of actions at the same time, so our acting can be compare with racing vs dancing [Hampden-Turner, Trompenaars, 2006, p. 84]. Sequential way of thinking separates past, present and the future, whereas synchronic – makes them connected and supporting the individuals [Hampden-Turner, Trompenaars, 2006, pp. 88–89]. According to what was written above, Lean Management has a synchronic character.

Japan is synchronic as well and different actions can be taken at the same time if they are connected properly. Synchrony and long term planning influence the thinking in the terms of hybrids from different areas of industry [Hampden-Turner, Trompenaars, 2003]. Long term planning makes enterprises last and develop because their goal is not only a profit, but persistent development as well [Hampden-Turner, Trompenaars, 2003]. *Just-in-time* is a synchronic production system. In this flexible system the parts are supplied just in the time they are needed, cost are reduced (...) and the varied production is possible. The system is based on the synchronised vision of the desired future state [Hampden-Turner, Trompenaars, 2006, p. 155]. So we have here the connection between Japanese organisational culture and the management system again.

Polish and Mexican workers showed the sequential attitude to time. They admitted that they realise their tasks quickly and in set order (23 out of 30

Polish employees) and according to a sequence order (11 out of 12 Mexican employees). When they were drawing circles, which were showing their attitude to the past, present and future, the circles of 24 Polish workers were disconnected and the biggest circle was this one, which represented the future. 7 out of the 12 Mexican workers draw separated circles as well, which is the sign of sequential way of thinking. Sequency, which is shown as the characteristic of American managers as well, presents such obstacles in Lean implementation as for example: short – term thinking, too big role of ambitious individuals or desire to predict and control the future [[Hampden-Turner, Trompenaars, 2006, p. 172].

Next dimension: achievement vs ascription is placing people in the structures according to their own achievements vs their features like age, sex, education etc. One can get the position because of his/her results in work or because the characteristics which do not rely on the individual, for example being a part of the privileged group [Hampden-Turner, Trompenaars, 2006, 98]. Respect to authorities and older workers is the common characteristic not only of the Japanese culture, but even of the way Japanese transfer their knowledge [Ohno, 1988].

Japan has a very strong ascription especially according to the experience, age and the length of period of work in the enterprise. There is an opinion that value of the employee increases with the age, so the older workers are seen as more experienced and the younger workers should learn from them [Hampden-Turner, Trompenaars, 2006, pp. 100–101]. It can be connected to the importance of the cycles in Japanese culture for example the cycle of life, where the olders are passing their knowledge to the youngsters before they pass away [Hampden-Turner, Trompenaars, 2006, p. 147]. The respect to the authorities and supervisors is still visible in Japanese way of working.

In Polish subsidiary the most important feature was achieving. So all of the researched employees admitted that higher salary should be given to people who have better results and put more effort in their work. Only a few said that connections within family and friends are helpful in the process of applying for a position. Very similar results were in Mexican subsidiary. 8 out of 12 employees said that the higher salary is given to the workers who achieve better results and 9 out of 12 said that friendship and family connections in the organisation do not have any meaning in recruitment, evaluation or position's relocation. But in this case, I think that both dimensions can be useful in Lean implementation. Ascription can set up the hierarchy and internal order so it can be a powerful tool of control. Achievement can be used as such tool as well but in different way – I mean as a motivational tool. High level of motivation can be helpful in Lean implementation, for example by rewording the most efficient groups or promoting people to become Lean leaders.

The last dimension: equality vs hierarchy is the difference between flat and sharp/hierarchical organisational structure and the role of authorities in it [Hampden-Turner, Trompenaars, 2006]. As was mentioned above, the authorities and hierarchy can be powerful control tool, used to set the accepted organisational order. Hierarchy can support the effectiveness of the system, equality can support continuous improvement, cooperation and teamwork.

There is strong hierarchy in Japan, which is called “organic order” [Hampden-Turner, Trompenaars, 2006, p. 107]. Regardless of the role of authorities there is still communication from the bottom to the top, so worker’s ideas are still taken into consideration, because the success of organisation is depended on all their members [Hampden-Turner, Trompenaars, 2006, p. 127]. The measure of individual success is the power: so if one wants to be unpleasant to the other, he/she can say that the other person has no power or influence [Hampden-Turner, Trompenaars, 2006, p. 121]. The hierarchy supports by Confucianism, the high importance of a family and strong paternalism. Very often the work and family life are toughly connected, so the enterprise is seen as a big family. Especially that the family is seen as a basic social cell, the prototype of all organisations [Hofstede, 2000, p. 249]. The connection between hierarchy, paternalism, cooperation and external control support the picture of Japanese as a disciplined, submissive and integrated nation. These features help with implementation of planned and total change for organisation, which lean Mangement can be.

According to Ch. Hampden-Turner and A. Trompenaars, Poland has highly hierarchical and analytic attitude, which is common for centrally directed economy [Hampden-Turner, Trompenaars, 2003, p. 107]. Similar results came out of research: 16 out of 30 employees choose sharp hierarchy as a shape of their organisation. And half of employees said that people should be treated equally, the other half - that everybody should knows his/her place in the organisational hierarchy. Hierarchy can be supportive to Lean Management, but the heritage of Polish centrally directed economy is not helpful in this process. The reason is the appearance of such attitudes as: low level of discipline or the syndrome of waste’s avalanche [Kostera, 1999].

In Mexican subsidiary most of employees voted for equality. Half of employees said that their organiation has a flat sructure of management, and the other half – that the structure is sharp. But 7 out of 12 said that in their organisation all people are treated as equal and this feature looks like very important value in their culture and historical heritage.

## 5. Summary

Summarising the results of research made by Ch. Hampden-Turner, A. Trompenaars and the results of my own research, they can be systematised and shown up in the table below. At the same time they can be used to understand the culture and its characteristics that can be more or less helpful in Lean Management implementation.

**Table no. 1:** Dimension of organisational culture – Japan, Poland, Mexico - comparison

dimension	Japan	Poland	Mexico
universalism - particularism	particularism	universalism	universalism
analysis - synthesis	synthesis	analysis	analysis/synthesis
individualism - collectivism	collectivism	collectivism/ individualism	collectivism
internal – external control	external	internal	internal
sequency - synchrony	synchrony	sequency	sequency
achievement - ascription	ascription	achievement	achievement
equality - hierarchy	hierarchy	hierarchy	equality

Source: own study.

Characterising Japanese organisations according to the 7 cultural dimensions developed by Ch. Hampden-Turner i A. Trompenaars, we can point out that Japan characteristics are: particularism, synthesis, collectivism, external control, synchrony, ascription and hierarchy. According to the thesis about cultural conditioning of Lean Management, the supporting factors are mainly: particularism, collectivism and synchrony. In my opinion the rest of the features like external control, strong hierarchy and ascription are the system's regulators and they can support the worker's subjection and effectiveness of implemented management system.

According to the research, the organisational culture in Polish and Mexican subsidiaries have such characteristics as: universalism, analytical attitude, internal control, sequency, hierarchy/equality and achievement. Analytical attitude and sequency can be a difficulty in the understanding the rules of organisation of the production process according to the Lean Manufacturing. Universalistic attitude is not very useful as well; especially that Lean

manufacturing is not a set of procedures, but rather the attitude to work and to the environment. The hierarchy can be the control factor, so top management can implement Lean Management and support it but it is not enough to make it successful. Equality can be useful in implementation as well, but it needs a full and deep understanding of the Lean Management rules and assumptions. The internal control and achievement are the factors, which in my opinion can be used during the implementation to motivate the staff and help to make it successful.

I hope, that the results shown above support the thesis about cultural conditioning of Lean Management. In my opinion, there is a great practical value of that kind of research, because by characterising the organisational culture of the different nations, we can find not only interesting differences between them. We can find out that these differences can be taken into consideration in the management process and they can be used to support the implementation and development of such original ideas as Lean Management.

### References:

- Borden, G.A., 1996. Orientacja kulturowa. Teoria służąca rozumieniu i badaniom komunikacji międzykulturowej [in:] Kapciak, A., Korporowicz, L., Tyszka, A. (eds.), *Komunikacja międzykulturowa. Zderzenia i spotkania*. Instytut Kultury: Warszawa.
- Dennis, P., 2002. *Lean Production Simplified*. Productivity: New York.
- Fukuyama, F., 1997. *Zaufanie. Kapitał społeczny a droga do dobrobytu*. PWN: Warszawa-Wrocław.
- Hampden-Turner, Ch., Trompenaars, A., 2003. *Siedem kultur kapitalizmu*. OE: Kraków.
- Hampden-Turner, Ch., Trompenaars, A., 2006. *Siedem kultur kapitalizmu*. OE: Kraków.
- Hofstede, G., 2000. *Kultury i organizacje*. PWE: Warszawa.
- Konecki, K., 1992. *W japońskiej fabryce. Społeczne i kulturowe aspekty pracy i organizacji przedsiębiorstwa*. ISUE: Łódź.
- Kostera, M., 2003. *Antropologia organizacji*. PWN: Warszawa.
- Kostera, M., 1999. *Zarządzanie personelem*. PWE: Warszawa.
- Lichtarski, A., 1997. *Podstawy nauki o przedsiębiorstwie*. WAE: Wrocław.
- Liebowitz, S.J., Margolis, S.E., 1995. Path Dependence, Lock-In and History. *Journal of Law Economics Organization*. Vol.: 11, Issue: 1.
- Ohno, T., 1988. *Toyota Production System. Beyond Large-Scale Production*. Productivity Press: New York.
- Schein, E.H., 1986. *Organizational Culture and Leadership*. Jossey-Bass: San Fransisco-London.
- Schonberger, R.J., 1982. *Japanese Manufacturing Techniques. Nine Hidden Lessons in*

*Simplicity*. The Free Press: New York.

Stoner, J.A., Wankel, Ch., 1997. *Kierowanie*. PWE: Warszawa.

Sułkowski, Ł., 2002. Czy kultury organizacyjne zmierzają do unifikacji?, Instytut Pracy i Spraw Socjalnych. *Zarządzanie Zasobami Ludzkimi*. No. 2-3,.

Trompenaars, F., Hampden-Turner, Ch., 1998. *Riding the Waves of Culture*. McGraw-Hill.

Zbiegień-Maciąg, L., 2002. *Kultura w organizacji*. PWN: Warszawa.

[www.en.wikipedia.org](http://www.en.wikipedia.org)

[www.leanvision.com.pl](http://www.leanvision.com.pl)

[www.zie.pg.gda.pl](http://www.zie.pg.gda.pl)

own resources (Lean Management training materials)