

META-ORGANIZATION: THE FUTURE FOR THE LEAN ORGANIZATION

Paulo de Tarso Soubhie Napolitano¹ and Fernando Cerveró-Romero²

ABSTRACT

Lean companies' growing difficulty to detect their customers' needs and values are rendered even more complex by their constantly changing economic, social, political, technology and cultural contexts. In no few cases, the companies' adaptability and reacting strategies are much lower than expected to cope with such circumstances.

The implementation of meta-organizational strategies within lean companies aims at improving their core working systems by means of integrating a number of firms within an individual one. As a company made up of a myriad of different companies, meta-organizational tactics enable an accurate discernment and identification of inner and external issues so as to provide a holistic vision of the context and a more qualified response to occasional problems.

This paper is based upon a case study resulting from three years' work conducted at a lean construction company based in the US. The work carried out by the company exemplifies the transition from a classic lean firm to one incorporating 41 different companies as a token of the meta-organizational system. In this sense, we will attend to the Meta-Organization Engine concept®; the inner structure of meta-organization companies; the use of lean philosophy for the generation of meta-organization systems; the communications Matrix developed; and the benefits of such implementation.

We will conclude by stating that meta-organization systems have provided a better contextual knowledge of the environment. Furthermore we will show how this new interdependence between companies has entailed the increase of their business opportunities. The company studied will help us understand how it has become the core of meta-organization by sharing its innovation through the implementation of lean strategies.

KEYWORDS

Lean construction, value.

INTRODUCTION

Lean organizational forms evolve to better meet the needs and values of their clients. The concept of value should be represented in a global context, where social, economic and political constrains should be considered. (Salvatierra-Garrido, Pasquire, and Thorpe 2010). Due to the dynamic environment lean companies' growing difficulty to detect their customers' needs and values are rendered even more

1 Director of Learning for Herrero Contractors Inc. 2100 Oakdale Avenue, San Francisco, CA 94124, USA, Phone +1 (415) 8247675 pnapolitano@herrero.com
2 Lecturer at School of Building Engineering, Department of Architectural Constructions, Polytechnic University of Valencia, Phone +34 636548839, fercerro@csa.upv.es

complex by their constantly changing economic, social, political, technology and cultural contexts.

The interdependence between companies can help to identify what value is. In order to respect the interdependences' characteristics a new model of organization is needed. The Meta-Organization allowed companies to create interdependence between each other.

A case study exemplifies the transition from a classic lean firm to one incorporating 41 different companies as a token of the meta-organizational system. To understand creation process for the Meta-Organization, we will attend to the Meta-Organization Engine concept®; the inner structure of meta-organization companies; the use of lean philosophy for the generation of meta-organization systems; the communications Matrix developed.

The paper concludes sharing the main benefits of the implementation and the challenges to be the core of the Meta-Organization.

HYPOTHESIS

DIFFICULTY TO DETECT CUSTOMERS NEEDS AND VALUES

Due to the concept of value, organizations have some difficulty to detect what value is. The concept of value should be represented in a global context, where social, economic and political constrains should be considered. (Salvatierra-Garrido, Pasquire, and Thorpe 2010). According to (Emmitt, Sander, and Christoffersen 2005) values will change over time and the perception of value is individual and personal, and is therefore subjective. Value is a matter of personal opinion, which can and does change over time (Bertelsen and Emmitt 2005). In this way, the relationship between one organization and value should be represented like the interaction between the environment and the organization's perception of value through its sensory system. (Figure 1)

Figure 1 shows the environment³, the organization and its sensory system; the capacity to understand and to detect what value is in this environment.

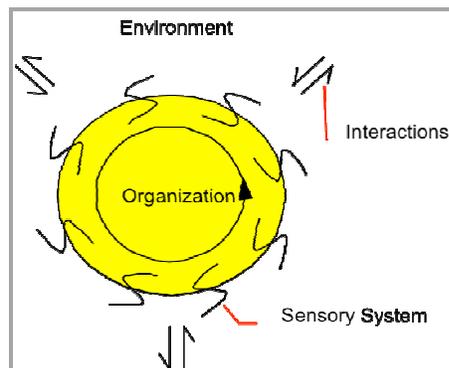


Figure 1: Interaction between organization and environment

³ Economic, social, political, technological and cultural contexts

Going back to one of the characteristics of value, which is subjective, we show in Figure 2 how each organization has a different sensory system to interact with the environment. This sensory system is individual for each organization. That means each organization could have its own value perception in the same environment.

Therefore, organizations do not detect the entire concept of value for their customers.

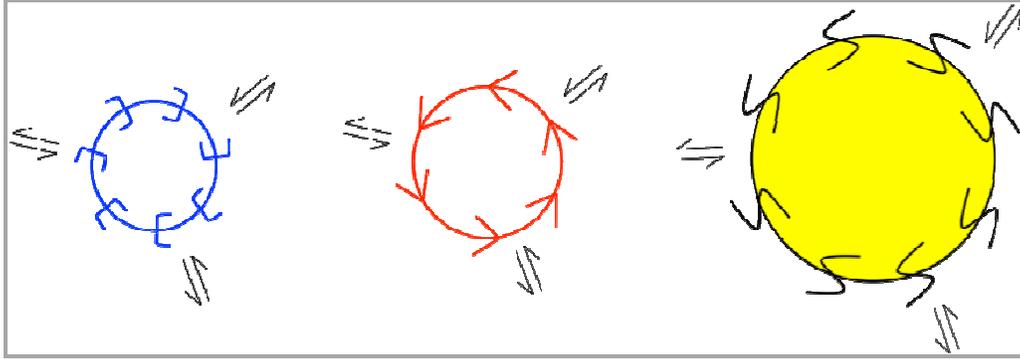


Figure 2: Each Organization interacts in its own way

Also, the magnitude of the value concept and its relationship to the changing environment makes it unpredictable. However, in no few cases, the companies' adaptability and reacting strategies are much lower than the environment.

- Can we improve the ability for organizations to detect what value is?
- How can we do it?

CREATING A NEW MODEL OF ORGANIZATION

One way to address this problem, in our opinion, is creating a bond between each of these sensory systems. If organizations are able to connect more sensory systems than its own, it could better detect the environment and they could adapt faster to the changes. The way to achieve this is by linking these systems generating interdependence between each of the organizations. The characteristics of interdependence are: (<http://en.wikipedia.org/wiki/Interdependence>)

- Interdependence is a dynamic of being mutually and physically responsible to, and sharing a common set of principles with others.
- In an interdependent relationship, all participants are emotionally, economically, ecologically and/or morally self-reliant while at the same time responsible to each other.
- An interdependent relationship can be defined as an entity that depends on two or more cooperative autonomous participants.

However, traditional union models between organizations do not meet all the requirements. Table 1 shows the relationship between these characteristics and the traditional models, and the necessity to create a different Organizational Model to support interdependence among Organizations.

Table 1: Organizations and Interdependence

THE META-ORGANIZATION

This new model is called Meta-Organization (MO).

All meta-organizations have some common characteristics that differ from individual- based organizations (Ahrne and Brunsson 2010). The creation of Meta

Interdependence Essentials	Merge between Organizations	Organizations bonded by Contract	<u>New Model</u> ?
Common set of principles	Possibly	No	Yes
Self reliant	No	Yes	Yes
Responsible for each other	No	No	Yes
Synergy	Possibly	Possibly	Yes
Similarity	Possibly	Possibly	Yes
Ability to deal with the environment changes	Medium	Low	High

Organization differs from mergers and acquisitions. During mergers and acquisitions the number of formal Organizations decreases and the size of remaining Organizations increases. In the formation of MO the number of total Organizations increases while the size of the original Organizations is left unaffected. A Meta Organization is an Organization composed by other Organizations. The members of a Meta Organization are Organizations and not individuals. (Ahrne and Brunsson, Meta-organization 2011).

There are 3 basics conditions for MO existence according to Ahrne and Brunsson (2008)

- The purpose of a MO must work on the interest of all members: The main purpose of a MO is to help their members in their operations. A common aim among the MO has been for members to provide information to each other and thereby increase their total knowledge.
- Membership based on similarity: Membership is normally based on the members being similar in some respect. They are all a certain type of state, a firm in a certain industry, a certain type of association.
- All members are equally valuable and members can withdraw at will. The members of a MO have considerable autonomy. They have applied for membership by choice and they are free to leave at any time. They cannot be forced to become members or to be purchased. All members are expected to be of equal value, and in principle, to exert equal influence. Members of a meta-organization are often better known, and seen to be more important than the meta-organization itself.

According to these conditions, the MO meets all the requirements for this new model that Table 1 shows.

CASE STUDY

Due to the new concept and the exploratory nature of the research, a single case is provided. This case study results from three years' work conducted at a lean construction company based in the US. The work carried out by the company exemplifies the transition from a classic lean firm to one incorporating 41 different companies as a token of the meta-organizational system.

One incentive for trying to establish a MO is to exert an influence on the interactions among organizations that are to become members of the MO.

Reduce the impact of the environment in our organization through interdependence with other Organizations.

Be capable to identify more and different opportunities without a high cost.

In order to create a MO, the company starts creating bonds between other organizations. The way to do it is through Meta-Organization Engine concept®.

THE META-ORGANIZATION ENGINE ®

The Meta-Organization Engine concept (MOE) works in three different stages as shown in Figure 3:

- The Meta Training LT; it is a Lean training for all the organizations who want to become members of the meta-organization. Training provides a process (lean approach®) to help companies initiate their lean implementation (purpose: to help companies become lean) . This process must impact the strategic thinking of the Organization
- The Meta Sharing (QM-Quarterly Meetings); the goal is that companies share their experience in lean implementation and what breakdowns they are experiencing (improve effectiveness and efficiency).
- Meta Research (CR-Combined Research); work on removing breakdowns and developing new processes assessments to help organizations in their implementation and to help each other (call other organization to assess my organization) (improve effectiveness and efficiency). Generating knowledge bond (k2) (Figure 4).

Figure 3 represents the three stages as three different containers. When one has been completed we need to move onto the next one, until we reach the last one. In the first one (LT) basic lean concepts and knowledge are introduced and preparations for the second stage are started so that these concepts can begin to be applied. Once the skills and abilities needed have been acquired in the Meta Sharing stage, QM will take place in order to share and learn from others experiences. When we get to the last stage, the Meta Research, it is possible to start the CR, carrying out combined research among the different members of the MO. It is at this point that processes can be adjusted and new ones can be generated. These modifications and new processes allow the continuous improvement of the whole process, by incorporating the new version to the next training session.

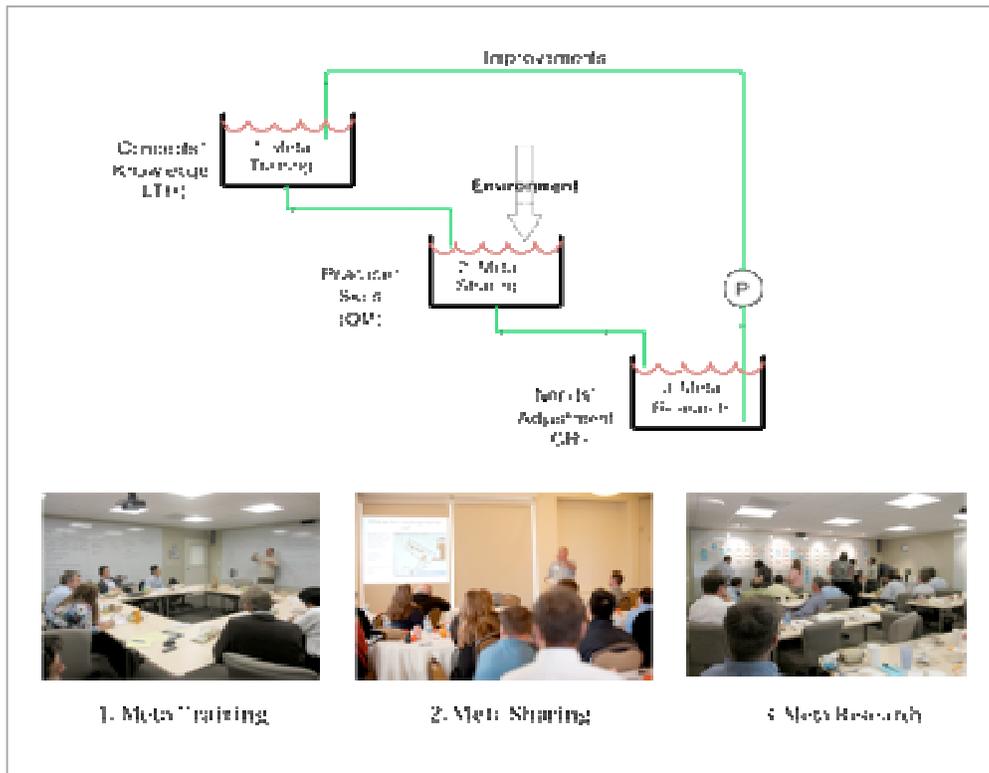


Figure 3: Meta-Organization Engine concept

The fact that members are completing the 3 stages of the MOE enables them to create a bond between them (see Figure 4, Bond K2). However, the company studied having initiated the process, it is considered the leader within the MO as it is the main innovation generator through Lean. As we can see in Figure 4, it has a stronger bond (K1) with the other members and is significantly more important than the other bond (K2).

In Figure 4 we can see how the sensory systems of all the organizations have been respected thus keeping the characteristics of interdependence and Meta-Organization.

To be able to maintain this type of MO one of the most important aspects is communication between members.

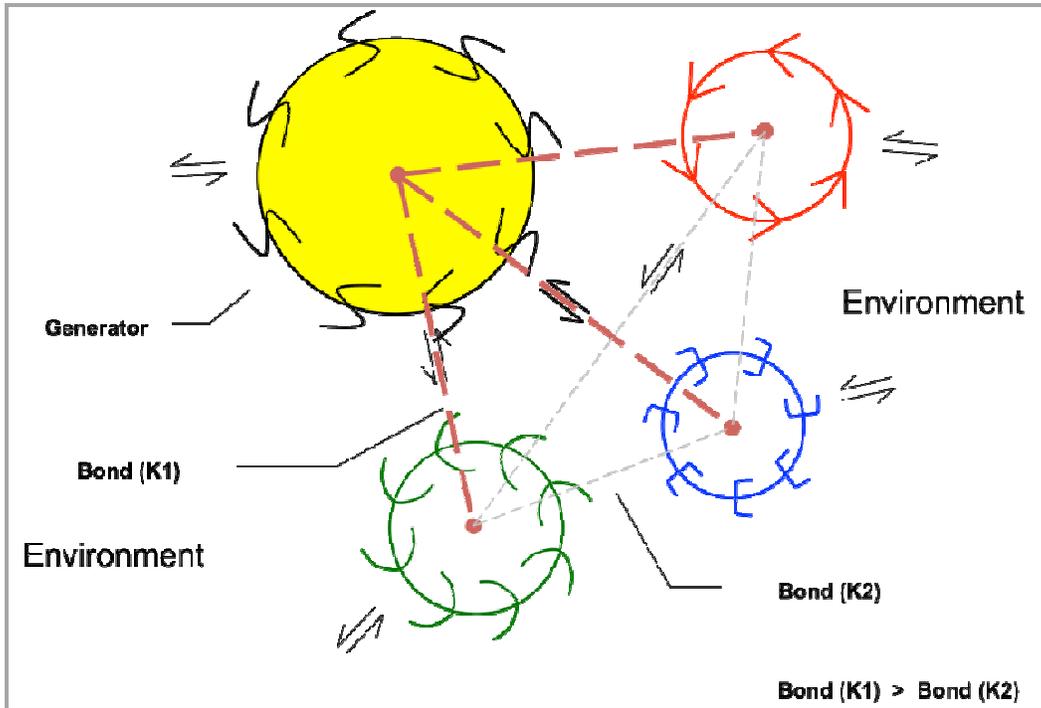


Figure 4: Meta-Organization structure

THE COMMUNICATION MATRIX

Decisions about who is collocated with whom are as important as decisions about who is grouped with whom in the organization's divisional structure (Nadler and Tushman, 1997). In meta-organizations, by contrast, any significant degree of collocation is impractical (Gulati, Puranam, and Tushman 2012). We found this are the best way to keep communication flows for all participants in a Meta-Organization.

Type	Frequency
Email	Weekly/Daily
Weblog	Weekly update
Community Event	Quarterly
Combined Research	According to Plan
Interview	Monthly
Bulletin	Quarterly

THE META-ORGANIZATION BONDS

Since the MO began its set up 3 years ago, it hasn't stopped growing in terms of number of members. The company studied has carried out different analysis throughout this period to find out about the way it has grown and especially about the relationships between all the members. The software used to this purpose is UCINET. This is shown in Figure 5. We can see the bonds that have been created. At the time this diagram was created the MO was made of 26 members. The number of members is currently 41.

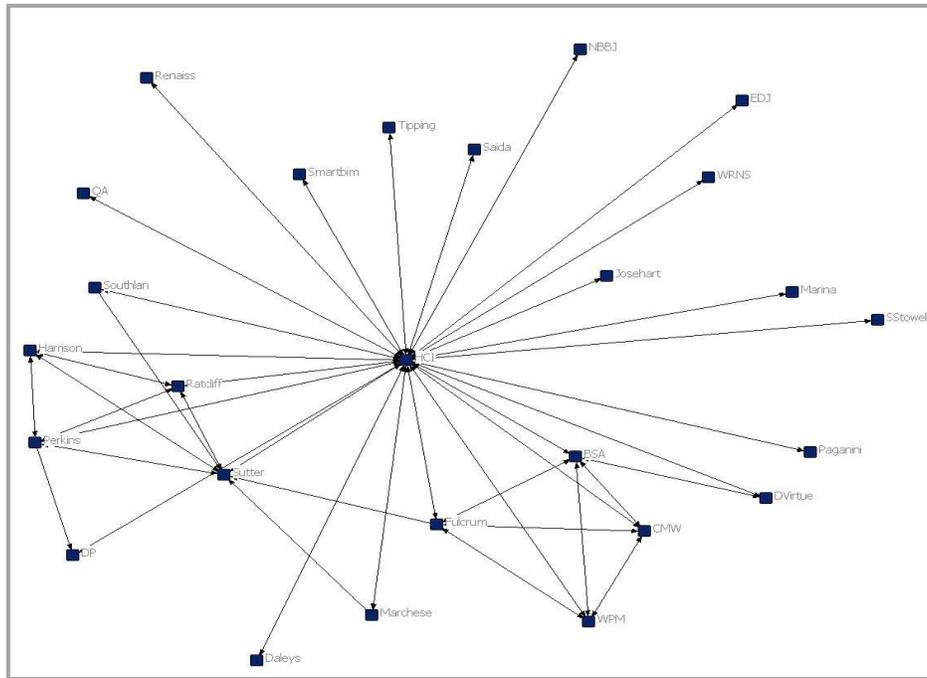


Figure 5: The Meta-Organization bonds

CONCLUSIONS

Through qualitative analysis⁴, authors can conclude that meta-organization system has allow the companies to develop three types of interdependence:

- Type 1: Interdependence based on shared knowledge. (Table 2, question 1)
- Type 2: interdependence on strategic thinking where companies help each other to deal with changes in environment. MO provided a better contextual knowledge of the environment. The Meta-Organization Engine concept allowed its participants to perceive the concept of value with a greater extent than previously. (Table 2, question 2).
- Type 3: interdependence where companies exchange opportunities to do business together. Members share knowledge, news processes and research.

⁴ See table 2

This knowledge-based union makes them share news projects so their business opportunities increase. (Table 2, question 3).

Table 2: Survey answered by MO companies showing the 3 types of interdependence

Number	Question	Completely Agree	Agree	Disagree	Completely Disagree
1	The MO is provides learning for your organization	100%	0%	0%	0%
2	The learning provided helps your organization develop a better strategy to succeed	63%	30%	7%	0%
3	The MO helps you develop more opportunities for your organization	21%	62%	15%	2%
4	The MO helps you share resources with other organizations	20%	30%	34%	16%
5	I want to be a part of this MO	81%	15%	4%	0%

Additionally, because the links and bonds created between members, companies are sharing not only knowledge, but human resources too. When any of the companies need people for one project other members share its staff with them. (See question 4, table 2).

Furthermore, the knowledge that companies share include how to detect value through Lean Approach® process. 83% of people recognize that MO helps their companies to develop more opportunities (see question 3, table 2). This increase in opportunities shows that the bonds between firms have led to share their sensory system to detect client’s needs and values.

In addition, the company studied has become the core of meta-organization by sharing its innovation through the implementation of lean strategies. Where bonds (k1) between this company are stronger than the bonds (k2) between the others. However, the challenge is that we need to develop a new theory of management to help organizations restructure themselves as meta organizations, where “be a facilitator” becomes a core ability for Leaders and their goal is to manage diversity instead of getting consensus. They need to understand that share knowledge is important as generating new knowledge and they must support and encourage the development of new approaches and methodologies.

Lastly, due to the early stage of the implementation, authors can conclude that more work is needed. To demonstrate the hypothesis more quantitative and qualitative research is required.

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