

# Organisational learning and sustainability

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## ABSTRACT

**Objectives:** Finding a connection between organisational learning, learning organisations and inter-organisational learning. Presentation of the inter-organisational learning model. I investigated the extent to which the factor of sustainable development is present in the healthcare markets of 4 European countries where procurement takes place through central tenders. With this in mind, I have realised what results effective inter-organisational learning may bring in terms of sustainability.

**Methodology:** Targeted analysis and processing of 3 literature reviews in terms of theoretical background to find common ground between organisational learning, learning organisations and inter-organisational learning. Content analysis of the tender documentation of the 4 selected countries with a regard to sustainability criteria. Among companies operating in the healthcare sector.

**Findings:** Definitions of organisational learning most often include statements about the following key concepts: action and behaviour, learning and knowledge. In the definitions of learning organisations, the following 5 broad areas can be identified where researchers perform the definition of the concept: Learning, Organisational Structure, Shared Vision, Knowledge Management, Strategy, which means that learning and knowledge management are common. The elements of behaviour and learning return in the model of sustainable inter-organisational learning, with the addition that effective inter-organisational cooperation is subject to the existence of trust between the cooperating parties.

**Research/practical implications:** I conducted a content analysis in the EU countries where healthcare procurement is carried out through tenders. I searched for the requirements and criteria for sustainability in the invitations to tender and also determined their proportion in the tender as a whole. In each of the countries examined, this constituted no more than 5-6%.

**Originality/value:** The research draws attention to the need for trust in inter-organisational sustainability learning. The research identifies as a further research direction the health sector as one of the most dynamically developing sectors for the implementation of inter-organisational sustainability learning.

**Keywords:** organisational learning, sustainable development, knowledge sharing, inter-organisational sustainability learning

## 1. Introduction

We live in the age of knowledge and information society, where human knowledge and intelligence have gained increased recognition (Bencsik 2009). No company is able to organise and sustain itself without the right knowledge (Davenport-Prusak 2001). At both the corporate and the individual level, the role of what has been coined lifelong learning, and knowledge management has also become a key issue (Bencsik 2009).

According to the literature, the concentration of a company on market orientation alone does not necessarily mean a sustainable competitive advantage for companies. This can be explained by the following reasons. First, market orientation represents a narrow focus for the company that monitors the expressed needs of consumers and the activities of competitors, which can be perceived as the use of adaptive learning rather than the application of the ability to support the creation of new knowledge (Slater Narver, 1995). This narrow focus may cause companies not to recognise threats from non-conventional sources or market niches, the company focuses only on adaptation, which prevents market-oriented companies from building a sustainable competitive advantage. Second, based on resource-based corporate theory, an ability or resource results in an enduring performance advantage if it cannot be imitated by competitors (Barney, 1991). However, this is only true if companies are provided with tacit knowledge that is crucial for understanding buyers' current and latent needs (Day 1994). Such a knowledge base is only developed if companies adopt a broader and more proactive approach to market orientation (Slater Narver, 1998). It is widely accepted that a company's sustainable advantage lies in its ability to learn and anticipate market trends faster and easier than the competition. The learning organisation is an example of higher adaptation as opposed to the mere market orientation of firms (Örtenblad A.2004.)

In my research, I am looking for the answer to what is the connection between organizational learning, learning organizations and inter-organizations learning. I would like to know how sustainability is present in the health care market in Hungary?

## 2. Theory

### *2.1. Overview of organisational learning definitions*

I would like to start my review of the definitions of organisational learning by stating that internal resources and the external environment should appear as the two main priorities in organisational learning research, and we must accept that these two are strategically related to organisational performance (Bontis N. et al. 2002). Although this essential correlation is often absent from publications related to organisational learning, highlighting it is important as it is vital for the organisational efficiency.

In reviewing the literature, I found that the concepts of organisational learning and learning organisation are still confused in many publications. In my research, I follow the line of thinking that I separate organisational learning from the learning organisation and discuss it separately.

I did not find a uniform definition for organisational learning in the literature. This research area borders on several other areas, such as knowledge management, management or change management.

I present definitions of organisational learning in chronological order based on research by Bontis et al., supplemented by definitions collected by Roland Yeo.( see Table1.)

Chronology provides an opportunity to review how new concepts evolve and are included in the definitions. Argyris and Schön initially considered organisational learning only as a tool for recognising and correcting errors. Daft (1984) already mentioned the concept of knowledge and the concept of environmental interaction. In the first 20 years, action, knowledge and behaviour dominate the definitions, learning itself is first included in the definition by Crossan et al. (1999).

The analysis of key concepts focused on specifications of action in the definitions, followed by knowledge, learning, and then behaviour.

**Table1: Definitions of organisational learning**

| <b>Author</b>                | <b>Definition of organisational learning</b>  |
|------------------------------|---|
| 1. Argyris & Schön<br>[1978] | Organisational learning is a process of detecting and correcting error.   |
| 2. Daft & Weick<br>[1984]    | Organisational learning is the knowledge of the interaction between organisational action and the environment.  |
| 3. Fiol & Lyles<br>[1985]    | Organisational learning is the process of evolving action as a function of better knowledge and understanding.  |
| 4. Levitt & March<br>[1988]  | Organisations learn by encoding the outcome of experience into routines within the organisation that guide behaviour.   |
| 5. Stata<br>(1989)           | Organisational learning is a fundamental process in the creation of innovation. The degree to which individuals and organisations learn can become the only sustainable competitive advantage, in particular in knowledge-intensive industries.   |
| 6. Senge<br>(1990)           | Organisational learning entails the individual development of people whose perception becomes that of organisational thinkers to develop their own personal mental models and learn to work together.   |
| 7. Huber<br>[1991]           | When an entity acquires knowledge, through the processing of information, its possible behaviour changes.   |
| 8. Lee et al.<br>[1992]      | The organisational learning process is a cyclical process in which individual action leads to organisational interaction with the environment. Environmental responses are interpreted by individuals who in turn learn by reviewing their identification of causes and effect relationships. |
| 9. Meyer-Dohm<br>[1992]      | Organisational learning is the transformation of continuous testing and experience into shared knowledge that the organisation has access to and uses to achieve its main goals.  |
| 10. Nadler et al.<br>[1992]  | Learning requires an environment in which the results of experiences are sought, examined, and disseminated throughout the organisation.  |

|                                   |  |
|-----------------------------------|--|
| 11. Kim<br>[1993]                 | Organisational learning can be defined as the increasing organisational capacity to take effective action.   |
| 12. Levinthal & March<br>[1993]   | Organisational learning struggles with the problem of balancing competing goals of developing new knowledge and exploiting existing skills, as opposed to a dynamic trend that emphasises either one or the other.                                 |
| 13. Day<br>[1994]                 | Organisational learning involves the following processes: honest discussion, communicated interpretations, creation of memory.   |
| 14. Crossan et al.<br>[1995]      | Learning is a process of change in perception and behaviour, but this does not necessarily mean that performance is directly improved.   |
| 15. Slater & Narver<br>[1995]     | As the most basic definition, organisational learning is the development of new knowledge or insights that have the potential to influence behaviour.  |
| 16. Cavaleri & Fearon<br>[1996]   | Organisational learning is the deliberate creation of shared meanings that stem from the shared experiences of people in the organisation.   |
| 17. Braham<br>[1996]              | Organisational learning is learning about learning. The result is a renewed relationship between employees and their work that encourages the organisation to create a future for itself.  |
| 18. Miller<br>[1996]              | Learning must be distinguished from decision-making. The former increases organisational knowledge, while the latter does not. Learning may take place long before or long after the action.   |
| 19. Schein<br>[1996]              | Organisational learning is key in helping executives and engineers (groups that represent the basic design elements of technology) learn how to learn, how to analyse their own cultures, and how to evolve those cultures around their strengths. |
| 20. Denton<br>[1998]              | Organisational learning is the ability to adapt and utilize knowledge as a source of competitive knowledge. Learning must result in a change in the organisation's behaviour and action patterns.  |
| 21. Scwandt & Marquardt<br>[2000] | Organisational learning is a complex interaction between people, their actions, symbols, and processes within an organisation.   |

*Self made based on Bontis et al. 2000, following Yeo 2005, Ferincz A 2016.*

**Table2: Occurrence of key concepts in definitions**

| <b>Key concepts</b>      | <b>Definitions</b>   |
|--------------------------|----------------------|
| Error recognition        | 1                    |
| Knowledge                | 9, 12, 15, 18, 20    |
| Action                   | 2, 3, 11, 18, 20, 21 |
| Behaviour                | 4, 7, 14, 15,        |
| Innovation               | 5                    |
| Information processing   | 7                    |
| Environmental adaptation | 8, 20,               |
| Shared experience        | 16                   |
| Learning                 | 14, 15, 17, 19, 20,  |

*Self made table*

In general terms, organisational learning is a form of learning that takes place within the organisation, and has an impact on the functioning of the organisation. Essentially, it is displayed along the rules, routines, modes of operation, structures functioning within the organisation. An organisation is made up of individuals who learn individually, however, organisational learning is not the aggregate of the individual learning done by the individuals who make up the organisation, but much more than that. For the purposes of my research, I wish to use Gelei's definition, in which he emphasises the importance of complex learning theory and the change in the mindset of the individuals who make up the organisation. In this sense organisational learning

“...means an organisational self-cognizance process, the essence of which is that the organisation, reflecting on the accumulated collective experience and questioning the things taken for granted, becomes increasingly aware of its own situation, goals and operation, and can therefore operate with heightened efficiency and effectiveness” (Gelei, 2002: p. 6).

Given that organisational learning emphasises complex learning, I summarized the formulation of complex learning models in terms of organisational level interpretation. Argyris (1998) emphasises small group learning and the involvement of an outside observer who is able to participate in the self-cognizance process as a facilitator. Senge introduces the concept of learning organisation as community learning. Dialogue learning is a form of experiential learning carried out collectively where participants learn together from their shared and individual experiences. Participants gather their individual and collective experiences on a given topic in a dialogue and then reflect on them together. Individual and collective experience thus become the source of collective knowledge. The purpose of collective dialogue just like that of the individual learning process, is self-cognizance, to better understand ourselves and our organisational functioning.

Each of the above definitions includes the individual's self-cognizance, self-evaluation, and willingness to cooperate. A person with a healthy self-evaluation is capable of small group dialogue, the role of the facilitator, or the collective learning articulated by Senge. This requires a collaborative person, this dialogue is based on trust, honesty and acceptance of the other as partner.

I discovered an apparently unexplored area based on the literature on organisational learning that I have studied. The key concepts summarised in Table 2 show that the majority of definitions include the words action, behaviour, knowledge, and learning. Knowledge is created as a result of learning. However, learning will only take place in an ideal environment, so it is necessary to construct an environment as an organisation that supports the creation of organisational learning.

## *2.2. Learning organisations*

Pivotal to the concept of a learning organisation is organisational learning, which is the deliberate use of learning processes for the continuous transformation of the organisation (Dixon, 1999) and the associated knowledge management. (Argyris and Schon, 1978; Senge, 1995; Schein, 1993). Assuming that, with well-developed core competencies, organisations are capable of producing new products and services (Nevis et al., 1995), they should nonetheless not be considered as learning organisations. What makes an organisation generally a learning organisation is none other than its ability to create, integrate, and apply knowledge. This capability is vital for firms seeking to achieve a sustainable competitive advantage (Bierly et al., 2000).

For an overall review of learning organisations, I will start from a meta-analysis on this topic. (Keith et al. 2006) After reviewing documents consisting of 754 journal articles and books, the research grouped key topics. Following the methodology of meta-analysis, the study collected all the learning organisation literature, extracted information from it and presented it to us in a systemised form.

The synthesised set of the following five broad categories can be seen in the literature on the topic of learning organisation:

- (1) Personal mastery – the nature of learning at the individual level, where the individual is the creator, and as a result, the application takes place through the team, where the team and the organisation are present as synthesisers.
- (2) Structure – the basic processes and composition and systems required for learning organisations.
- (3) Shared vision – a catalyst and connector that can guide the organisation through change through effective leadership.
- (4) Knowledge management - capturing, structuring and redefining data is the implicit and explicit knowledge of the individual and the group.
- (5) Strategy - by which the organisation identifies the possibility of value growth, for which it develops the necessary competencies and thus exploits its potential.

**Table 3: Key elements from a meta-analysis of over 100 literature reviews of definitions of learning organisations**

| <b>Topic</b>  | <b>level%</b> | <b>Concept</b>                               |
|---|---------------|--|
| The team is a critical operational unit of the organisation.  | 40            | Team   |
| Understanding the mental model is important for developing individual learning.                                     | 65            | Mental model                                 |
| The process of learning with a double loop is the essence of the learning organisation.                             | 75            | Double-loop learning                         |
| The organisational structure should support informal communication and socialisation.                               | 40            | Informal collaborations and socialisation    |
| Without effective leadership and vision, the individual and the team cannot create a learning organisation.         | 30            | Leadership, Vision                           |
| Without the individual and the group, knowledge is not created  | 27.5          | Explicit knowledge                           |
| Technology plays a vital role in the creation of organisational knowledge<br>The learning organisation soars upward | 35            | Technology driven knowledge base<br>Strategy |

*Based on (Keith et al. 2006)*

### *2.3. Relationship between organisational learning and learning organisations*

Pivotal to the concept of a learning organisation is organisational learning, which is the deliberate use of learning processes for the continuous transformation of the organisation (Dixon, 1999) and the associated knowledge management (Argyris and Schön, 1978; Senge, 1995;).

The foundations of organisational learning were first formulated by Argyris and Schön. Based on their work, organisational learning is the ongoing process in the organisation by which members of the organisation continually monitor their activities and, if necessary, make changes to achieve their organisational goals. According to Argyris, organisational learning is none other than “a process of detecting and correcting error”. He contends that the organisation learns through individuals. So by organisational learning, he meant when specific groups of people react similarly to different external influences. Organisational learning essentially deals with the continued creation of new knowledge and the updating and development of existing knowledge.

Senge (Senge 1998) contends that a learning organisation means a working community where individuals strive for constant improvement of their competencies, adopt new ways of thinking that are supported by leadership, provide ample scope for collective ideas, and people are motivated to acquire the ability to learn together. An organisation that increases its creativity and talent by augmenting its knowledge for its continued development and survival. These organisations operate according to five principles, and each of these principles is necessary for the organisation to develop, to attain the gradual achievement of organisational goals, and to increase the level of human self-realisation.

These principles are as follows:

1. Systems thinking.
2. Self-development, self-management.
3. Shared vision.
4. Inner belief (attitude change, patterns of thinking).
5. Group learning, team work.

“... We can create communities, companies, institutions where people constantly endeavour to expand their ability to perform in order to achieve the results they actually strive for; where they help and support new, emerging ways of thinking; where collective ideas and desires play a role; where people are constantly learning how they can learn together. Thus, a learning organisation is essentially an organisation that continually increases and strengthens its creativity and talent in order to shape its future” (Senge 1998).

From my research point of view I consider the definition of the learning organization as the starting point, in which the goal is to create and operate organizational learning, and the end result of this efficient operation is the learning organization (Keith T..2006).

On the next chart I present the connection between the Learning organisation and organisational learning.

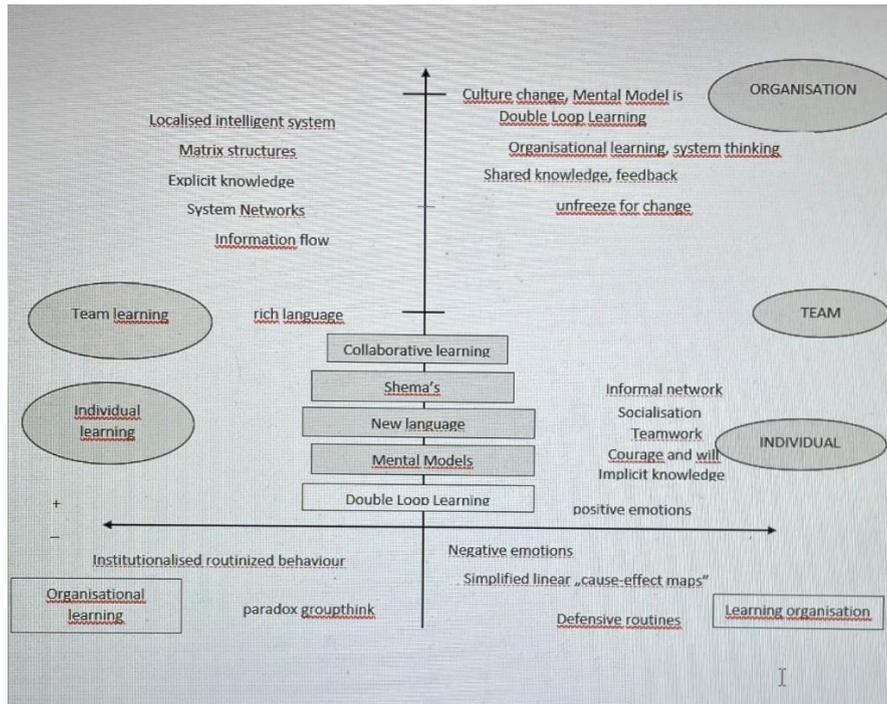


Figure 1. Connection the learning organisation and organisational learning. Self made based on Keith T. (2008)  
 2.4. Inter-organisational sustainability learning

Collaborative partnerships initiate inter-organisational learning processes. The model of inter-organisational sustainability learning is presented below (Dzhengiz T 2020).

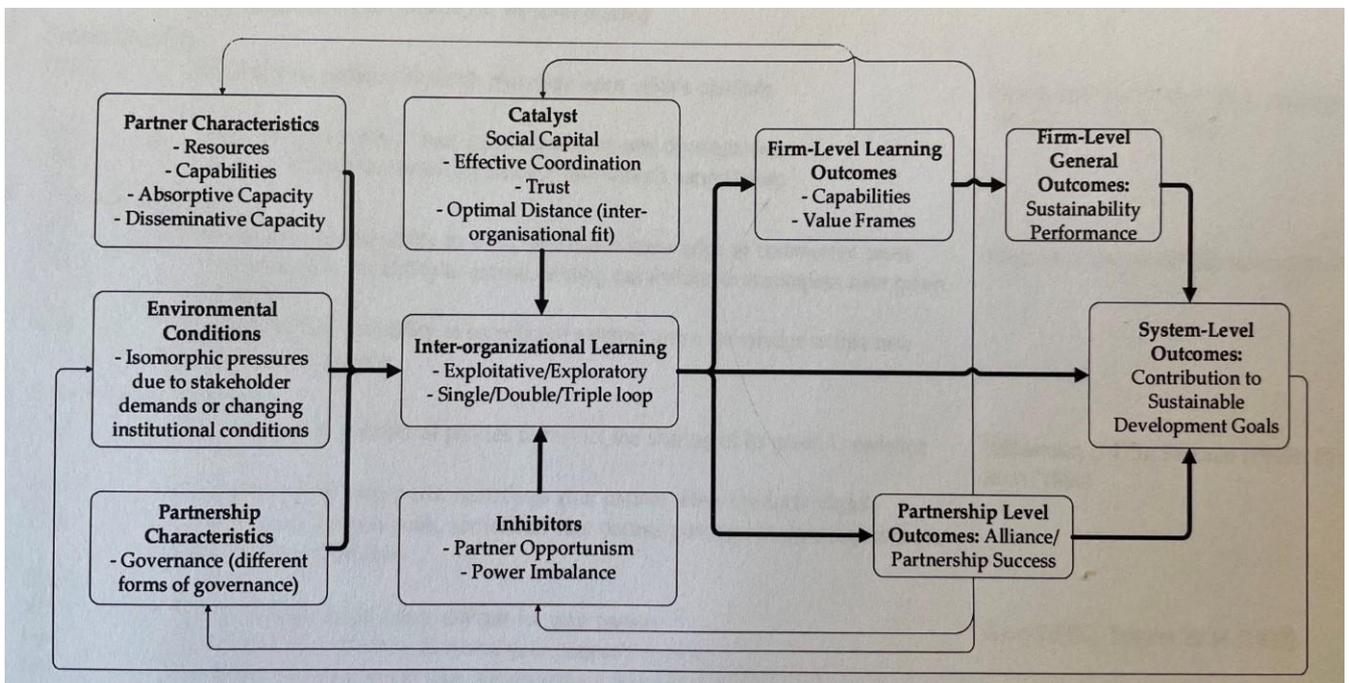


Figure 2 The model of inter-organisational sustainability learning Source: Dzhengiz T 2020.)

Based on the above model systematic literature review, it started with a search of 5688 articles on Web of Science, and according to the search criteria, it was formulated as the result of a review of 122 reviews (Dzhengiz, 2020). The study studied partnerships that were created to foster sustainability.

We speak of inter-organisational learning when the organisation imports the knowledge from outside, e.g. during supplier-customer relations, expert activity, contractual partnership activity. The key elements of the model: Partner characteristics, where two critical elements were identified, absorptive capacity, which is none other than the capacity to learn within an organisation, the willingness and ability of an organisation to apply the new knowledge learned to achieve its goals (Dzhengiz, 2020). This ability is paramount in the creation of green innovations.

Equally important is social capital in establishing inter-organisational collaborations. This includes effective cooperation and cooperation based on trust.

Because, based on the model, the above two factors, trust and partnerships, have the greatest impact on inter-organisational learning, I selected the healthcare sector to examine the extent to which sustainability is present as a criterion and an expectation in tenders. The method of analysis was content analysis and only EU public procurements were part of the sample.

I sought to answer whether and to what extent the criterion of sustainability is present in invitations to tender as an external environmental requirement based on the model of inter-organisational sustainability learning?

### **3. Methods**

I performed a content analysis in the documentation of tenders in the European market in the healthcare sector. I looked for sustainability and environmental criteria in the documentation. Based on this, I studied the tender documentation of the Netherlands, Great Britain, Switzerland, Germany and Hungary.

### **4. Findings**

Sustainability requirements in tenders are linked to 3 main themes: waste management, energy efficiency, green or sustainable procurement.

In terms of waste management, besides communal waste management, healthcare institutions generate significant amounts of so-called hazardous waste. The tenders announced contain expectations for the destruction of this waste, and technologies that promote the reduction of the quantity of hazardous waste are preferred.

#### *Energy efficiency*

The hospital sector in the EU must also comply with the EU Energy Efficiency Directive (EED).

The Dutch Climate Accord hospital initiative - a roadmap towards more sustainability - has been set up in the Netherlands. The regulations of this are included in the tenders, it incorporates the use of environmentally friendly packaging, the production of refillable packaging, and the use of “green” raw materials.

Hospitals are required to draw up a road map towards their sustainability goals to show how they are planning to work towards 2030 and 2050 CO2 emission goals when it comes to their buildings. On voluntary basis, organisations in healthcare sector can participate in the Green Deal Zorg and the certification programme Milieuthermometer Zorg, both of which have some connection to the Climate Accord.

There are three tiers on the Milieuthermometer Zorg: Bronze, Silver and Gold

Bronze level onwards required to have 4 yearly energy audit done under EED an exemption from EED audit. The second tier, Silver includes criteria on sustainable practices.

The importance of sustainable practices is reflected in the tender documents with one hospital demanding an environment management system from the supplier, and one hospital awarding 20% of achievable points to supplier with a corporate sustainability plan.

In the case of Germany, the sustainability criterion for the energy use of equipment is present in a narrow area, i.e. the procurement of equipment for endoscopy. This is to comply with EED regulations.

## **5. Further direction of research**

Based on the model, the fact that driven by the environment, but through collaborations, organisations embark on achieving sustainability goals, I determined the direction of further research. I would like to assess the quality of partnerships in the field of major healthcare suppliers, focusing on the following areas:

Shared value, participation, communication, learning capacity, trust and knowledge sharing information. Using a part of the validated questionnaire of Jao-Hong Cheng (2008), to conduct a questionnaire survey of the Hungarian TOP 200 healthcare suppliers to assess which ones demonstrate sustainability in their activities. Based on the questionnaire, following from the number of these companies and their collaboration activities, we can get an idea of the extent to which the appearance of sustainability goals is expected to appear in the Hungarian healthcare system thanks to the partnership collaborations.

## **6. Conclusions**

As a result of the analysis of organizational learning and the definitions of learning organizations, it has become clear that, according to the definitions, most of the wording is wrapped around the topic of learning. According to the model of sustainable learning between organizations, mutual trust is essential for learning between organizations. As I assumed a business relationship based on a high degree of trust among suppliers in the healthcare market, I examined the tender procurement documentation with content analysis use keyword sustainability, environmental protection. Requirements include sustainability as a tender criteria.

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