

The Leader's Role in the Creation of a Learning Organisation and the Innovation Process - the Example of Estonian Enterprises

Abstract

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In the process of innovation, learning in the organisation (individually and as a team) plays an important role. Many entrepreneurs underestimate and dedicate little energy and time to formulating teams where members' skills complement one another; and do not engage in improving their own managerial abilities. One has to know how to gather and analyse information, make balanced decisions and constantly find new solutions in order to support the success of a business in a demanding and fast-changing world of technology.

In the analysis of directing innovation process this article derives from the concept of a learning organisation. The model and questionnaire were based on the five discipline model (Senge, 1990) and the three-dimension model of the framework of organisation development (Mets, 2002). The study covers years 2005 – 2009; the questionnaire was filled out by 671 employees from different companies in Estonia.

The study of different samples delineates different patterns of a learning organisation. Based on factor analysis it became clear that the patterns of characteristics are substantially different for companies whose learning is based on employees or managers. Therefore the role of mid-level managers in directing the development of their direct subordinates is more important than has been realised thus far.

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Introduction

Organisational learning (OL) is related to an individual's behaviour in the organisation and the organisation's capability to react more effectively to changes in the environment. Today all organisations must cope with haste and numerous internal and external processes of change. Companies, organisations and governments must act in a remarkably changed global environment while the swift development of ICT has altered the meaning of business-geographical proximity/distance.

In Estonia labour productivity and efficiency are still problematic; the economic growth built on cheap labour has slowed down. One of Estonia's near-term development priorities is productivity growth. The development of a learning organisation (LO) is one way to encourage innovation processes.

This article gives an overview of one part of the survey with the aim to analyse how middle managers can make use of communication skills in increasing productivity through the concept of a learning organisation. The analysis is based on the example

of 15 Estonian manufacturing companies. The second part of the survey in this article analyses the leader's role in creating a LO and organisation learning culture relying on comparative studies conducted in one manufacturing and one service company.

The article gives a summary of the theoretical bases of the learning organisation and how they are linked to managers' communication skills. The author also analyses employees' responses to the survey, makes conclusions and proposals

Theoretical framework

Today learning, creativity and innovation are considered keys to the success, competitiveness and sustainability of organisations. OL, creativity and innovation are important topics for modern organisations and are linked to various functions (e.g. product development, production, management, etc.). Learning gives businesses the strength to face growing competition and swiftly react to changes while maintaining high productivity. The concept of a LO has also been explained as seeing knowledge as the basis of competition in the 21st century (Tidd et al., 2006). Garvin even declares that every company must become a LO (Garvin et al., 2008). The environment of a LO facilitates learning by all its members and helps them knowingly remodel themselves (Pedler, Burgoyne & Boydell, 1997). Sharing knowledge as such creates innovation as communication between people generates good ideas. Thus systematic knowledge management helps to increase productivity (Mayo, 2007). Businesses help people gain various benefits such as increased income, improved management and productivity growth (Alter, 2004). Fitzimons et al. (2002) say that many entrepreneurs spend too little time and energy on creating teams that would support each other's skills, and fail to improve their own management skills.

It has been argued if an organisation where learning takes place is by definition a LO and if what takes place is development or learning (Sun & Scott, 2003; Reynolds & Ablett, 1998). To describe the learning environment, authors use various concepts related to their models. C. Argyris (1998) uses the concept of "ecological system of factors" calling it a "system of organizational learning". Learning takes place only if "the learning system is" [...] "adequate enough to enable an organisation to implement its existing policies and meet stated objectives" (ibid.). This means that OL in its completeness happens in an organisation that has the characteristics of a LO.

It is important that the members of a LO support its mission and understand how the mission relates to their everyday work and activities (Goh, 2001). Vision is the hopes, goals and future directions of an organisation. If the vision is shared, people know what they need to learn (Calantone et al., 2002). In a LO vision means the desired future image of the organisation where learners create new and approved products and services (Marquardt, 2002; Senge, 2003). In a LO none of its members doubt that learning is a welcomed and appreciated activity (Wilhelm, 2006). In a LO all obstacles to learning have been removed and leaders support and encourage individuals' learning (Moilanen, 2005). Otherwise employees will lack motivation to apply new knowledge in their work (Calantone et al., 2002).

A LO encourages and rewards the testing of new knowledge and individuals' initiative to use new problem solving methods (Goh, 2001). All employees must be given feedback on their ideas and activities (Wilhelm, 2006). The flow of information and knowledge can be ensured mechanically, electronically and by communication. Information can be gathered via comparative analysis, conferences, surveys, the

internet and employees' proposals. Team learning is considered an essential characteristic of a LO by Marsick and Watkins (1999), Goh (1998; 2001), Moilanen (2005) and Senge (2003). Teams enable innovative problem-solving and creation of synergy. By using collective knowledge and skills it is possible to produce new innovative solutions. An environment facilitating team work encourages openness which is needed for learning to take place (Goh, 2001).

Organisation culture is complete and cannot be divided into parts. Professor E.H. Shein defines organisation culture as the main beliefs that an organisation holds towards the external environment and internal cooperation which is why these beliefs are considered right in the organisation and are taught to new members as desired ways of cognition, thinking and behaving (Shein, 1992). When creating organisation culture, numerous phenomena and objects related to each other need to be considered (Vadi, 2004). The role of an entrepreneur is to discover, assess and utilise new opportunities in business development. Discovering opportunities includes knowledge. Thus entrepreneurship must be seen as a form of learning which helps the entrepreneur to link various pieces of information. The outputs of learning are, e.g., short and long term business success, increased capacity of personnel, etc. Yet much of the learning takes place on the job via feedback and mistakes. Such learning can be called experimental (Franco & Haase, 2010). OL depends on the balance between four aspects: principles of collective behaviour, functioning of the group, behaviour patterns and individuals' thoughts. If the organisation fails to react to changes, the learning level is zero. In single loop learning new knowledge and experience is gained to achieve the established goals. The main beliefs do not change considerably. Double loop learning means reassessing an organisation's goals, values and main beliefs. Such learning changes organisation culture (Argyris, 1999).

Development is a more general term than change. The two only partly overlap. Development should include planned changes. The steps taken in development may not always yield the desired results, i.e. uncontrollable reactive changes may occur in an organisation (Mets, 2002). Launching development processes presumes that organisation members can cope with a number of successive changes and leaders have the skills and the ability to control the processes. Altogether it means the ability to learn on all levels, both individually and jointly – i.e. organisational learning.

Active communication is the key to developing and leading a learning organisation. In top-notch learning organisations all members are part of a constant feedback chain: they get feedback on their ideas or activities from their colleagues and they always share their ideas and suggestions with their co-workers. Such a continuous feedback chain ensures the functioning of a constant learning process (Wilhelm, 2006).

The biggest bottleneck, however, is insufficient availability of information in the right place at the right time, in a suitable form and required quantity. The main factors prohibiting information flow are (Marquardt, 2002):

- limited cognitive ability of those who receive information;
- delay of information because the disseminator cannot decide what is important and what not and therefore gets the priorities of information flow wrong;
- intentional or unintentional modification of the content of information;
- the cost of the tools enabling the transfer of knowledge.

The structure of an enterprise needs to be such that it is possible to create a well-functioning system for forwarding and spreading information: a system where different meetings, discussions, reports, overviews, interactive communication channels, etc. are used to disseminate information and where information is spread by all employees who are actively involved in the system (Wilhelm, 2006). Active communication with employees helps middle managers notice the factors listed above. Michael Marquardt (2002) has described such a chain of information flow as a process where different working tasks, problems and opportunities are turned into learning. A positive and open environment raises the dignity and satisfaction of employees (Mayo, 2007).

The linking element in Senge's model of five disciplines is transparent communication and activities that enable all members of the organisation to be sufficiently informed, share their ideas on what is going on and get relevant feedback. Literature on the learning organisation offers a number of key activities to help organisations learn effectively. Serrat (2009) describes skills that support learning from a functional perspective emphasising the development of a communication system. According to G. Propst and B. Büchel (1997), transparent communication and integration are important in the transition from individual learning to organisational learning (see Figure 1).

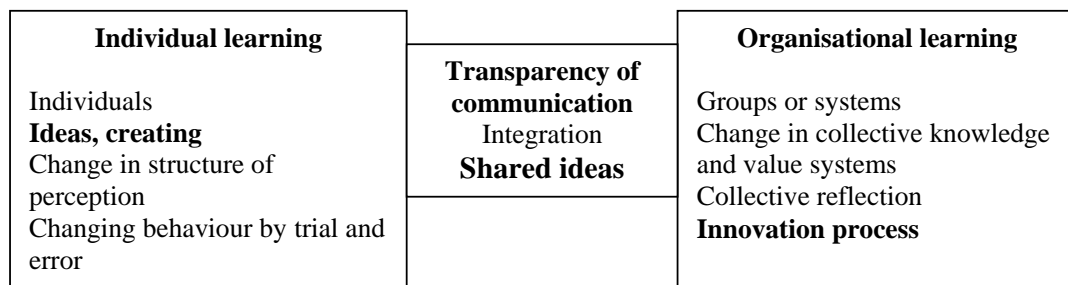


Figure 1. Transition from individual learning to organisational learning (by Propst, Büchel 1997 complemented by Torokoff).

The search for best practice in creating a learning organisation is related to different goals. Discussions with employees on how to achieve goals shape similar attitudes and ways of thinking. One obstacle may be that employees simply do not know in which phase of process development they are in or if they are even moving in the right direction. Resting on one's laurels may also cause a backlog: good results slow down or stop the search for new developments; everybody is content and nobody sees a need for continuous learning. As a result changes in the market and new challenges go unnoticed and action is often taken too late, when the situation is already critical (Wilhelm, 2006). Some sources imply that often the concept of a learning organisation is simply a powerful emotional symbol that feeds the enthusiasm of its followers, but in reality it does not change anything (Boreham, Morgan, 2004). For example, what complicates a production process is that the efficiency of production (employment of machinery) and employees (employment of time) greatly depends on a particular product and/or material and the personal characteristics of employees.

Middle managers need to consider all these aspects. To cope with the complexity of the interaction of different factors, managers – before making any decisions – need to communicate, be precise in organising their work and, if necessary, make suggestions for changes to improve the production process. New knowledge can be preserved either in the memories of organisation members or in the memory of the organisation itself, i.e. in its procedures and routines (Tidd *et al*, 2006). Preserving knowledge in the procedures and routines of the organisation is crucial for the sustainability and development of the organisation, as it enables to preserve knowhow, skills and experiences and to use them even if individuals leave the organisation.

Documentation of knowledge/skills/experiences should be a part of the work of all middle managers. In reality, middle managers usually practice tactical management and thus it is common that managers in manufacturing companies mostly focus on process management and technical issues. Often line and middle managers in manufacturing companies have been regular workers before and they lack management and communication skills. They have only been involved in operative management and have acquired their skills on the job. There is no doubt that those managers have impressive technical skills, but unfortunately these are not sufficient in leading people. They are missing the so called soft skills. In a way production managers have a double workload. They have to lead their employees and are responsible for the technical side of the production process (Rohula, 2008). However, via developing and leading a learning organisation, middle managers can reconcile different roles, i.e. take the role of an initiator and innovator knowing how to introduce and efficiently implement necessary changes in the department.

The reason why the author has chosen Senge's model of five disciplines as the theoretical basis of her survey is that the characteristics of a learning organisation in this model are universal and independent from the type and size of the organisation (Torokoff, 2008). Therefore, the survey can also be used in manufacturing companies (both micro- and small enterprises).

Usually surveys are used as a method to identify the characteristics of a LO. In a factor analysis answers to the questions of the survey sometimes produce surprising factor combinations while some factors never emerge, although in theory they should (see e.g. Silins *et al.*, 2002, Torokoff & Mets, 2008). This means that the findings of the analysis are various patterns (Torokoff, 2008) that may include different framework models of a LO and OL, and they more or less comply with the primary model. The factor analysis of the employees of the two companies conducted by the author in 2005–2008 showed that the companies have two OL patterns: managers' OL and employees' OL. Employees and managers perceive aspects of LO differently (Torokoff, 2008; 2009. See Appendix 1.). In essence organisations are the result of how its members think and communicate (Senge *et al.*, 2003). Therefore it is important to identify the “bottlenecks”. This can be done by analysing the free responses to the questions asked in the survey and the comparative studies conducted in one of the companies.

Different learning patterns make it imperative to analyse employees' pattern of behaviour to find the so called ‘bottleneck’ to further develop the organisation and lead enterprise's innovation processes more efficiently. Thus the factors influencing innovation process steering have a lot of linkages with features of LO and organisation's emotional climate is the focal point.

In summary it can be said that a learning organisation is not a goal in itself. It is a systemised way to develop an organisation. The strength of a learning organisation comes from the fact that the knowledge and experience created in it are documented and spread on every level via communication, and the environment is subject to development.

Empirical research data and analysis

The questionnaire contained 52 statements each of which could be assessed on a 10-point scale where “1” meant that the respondent strictly disagreed and “10” meant that the respondent completely agreed. Each characteristic of a LO was covered with 10–12 statements. The questionnaire ended with open questions (composed by the author in 2005 and revised in 2007). The author mainly used the arithmetic mean to compare survey results and standard deviation to present the variance in the values of characteristics.

Employees from 15 manufacturing companies (12 micro- or small enterprises and 3 medium-sized enterprises) in Estonia participated in the survey. The main fields of activity of the participants were small ship building, production of textile products, production of wooden structures, production of forgings, mechanical metal processing, electronics and meat industry.

The survey was carried out from December 2005 to December 2009 with the help of some students of the University of Tartu who used the gathered data for their Master, Bachelor or Diploma theses. Students of the Pärnu College of the University of Tartu helped to carry out the work,¹ two medium-sized Estonian companies participated in the comparative survey: manufacturing company MS Balti Trafo OÜ and a bank² as a service company.

1152 questionnaires were sent out; answers were gathered from 671 respondents. The return was rather high (58%) thanks to a personal approach to each respondent that was used to make them understand that every answer mattered for the development of their business.

Respondents were divided into three groups according to their position:

Workers/specialists	488	(73 %)
Middle and first line managers	149	(22 %)
Top managers and management members	34	(5 %)

71% of the respondents were women, 29% men.

Table 1. Number and share (%) of enterprises and respondents by field of activity

Field of activity	Enterprises		Respondents	
	Number	Share	Number	Share
Small ship building	5	33	34	5
Production of textile products	3	20	155	23
Production of wooden structures	1	7	118	16
Production of forgings	1	7	8	1

¹ I would like to thank students Lia Rohtla and Ehte Allikivi.

² For confidentiality reasons the name of the bank is not published.

Mechanical metal processing	3	20	7	1
Electronics industry	1	7	89	13
Financial organisation	1	7	260	39
Total	15	100	671	100

Source: Torokoff, 2010

The method used was survey. The author (Torokoff, 2008) compiled questionnaires to map the characteristics of a learning organisation where the characteristics are described as statements referring to either facts or phenomena. To analyse the influence of communication by middle managers, this survey relies on those parts of the questionnaire on the characteristics of a learning organisation that address communication (16). The statement could be assessed on a 10-point scale where 1 meant that the respondent strictly disagreed and 10 meant that the respondent completely agreed. The questionnaire ended with open questions. Of the answers given to the open question “*What would you change in your enterprise and why?*” three first-mentioned factors were picked and the answers were divided into five groups. In the discussion of results the answers to open questions have been given in Italics and the respondents have been marked with a code consisting of a letter and a number for confidentiality reasons. The analysis of the results is a combination of qualitative and quantitative analysis.

Results

In order to give advice on how to increase productivity, it is important to analyse how different employee groups approach questions. This survey aims to analyse the part related to communication. Therefore the author’s analysis relies on those particular statements that characterise communication between employees. In Table 2 communication related statements have been conditionally placed into the groups of the features of a learning organisation, as the statements are not independent (Torokoff, 2008). The discussion of results also includes direct answers to the open question: “*What would you change in your enterprise and why?*”

In Table 2 the abbreviations *TM* – stand for top management’s answer results, *MM* – mid-level management’s answer results, and *W/S* – workers’/specialists’ answer results.

Table 2. Overall results of answers to key questions pertaining communication

Statements describing communication in the light of the characteristics of a learning organisation	Medium-sized and small enterprises			Micro-enterprises	
	TM	MM	W/S	TM	W/S
I VISIONING					
1. We have a common vision of the company’s future in 5 years that we have all discussed together	7.0	7.5	3.9	7.8	6.1
2. Our employees make suggestions for changes that help to achieve the company’s goals	8.2	7.6	4.1	7.6	6.8
3. Our manager asks employees for advice.	8.5	8.3	4.8	8.1	7.3
4. All employees can participate in goal-setting for our company/structural unit.	6.7	7.1	3.9	7.4	5.9
II PERSONAL SKILLS					

Statements describing communication in the light of the characteristics of a learning organisation	Medium-sized and small enterprises			Micro-enterprises	
	TM	MM	W/S	TM	W/S
4. I am conscious of the common ground between personal goals and the goals of the company.	8.8	8.6	5.6	8.9	8.1
5. All employees have a common understanding of the quality of work.	7.7	7.2	6.4	7.9	6.4
6. Our people take initiative in achieving the goals of the company.	8.1	7.4	6.9	8.8	8.9
III VALUES					
7. Our company has a well-functioning feedback system.	8.5	6.5	6.4	9.1	8.5
8. In our company, problems are solved by looking at cause and effect. To solve a problem, we analyse its causes and the decisions we make focus on eliminating the causes of the problem and finding positive solutions.	8.1	6.3	4.4	9.0	8.4
9. I discuss and, if necessary, implement possible innovations with my co-workers.	8.2	7.1	4.7	9.0	8.6
10. The management praises our good performance in public.	8.0	8.3	5.6	8.8	8.0
IV LEARNING					
11. I share the work experience that comes from innovations with my colleagues.	8.0	7.8	5.3	8.6	8.2
12. I can discuss obstacles to my work with my direct superior.	7.8	7.2	5.9	8.2	7.7
13. In our company, managers have regular interviews with their employees (including performance assessment and development options).	8.1	7.6	5.1	9.1	8.9
V SYSTEMATIC WAY OF THINKING					
14. In our company, all work-related problems are immediately discussed.	7.7	6.8	5.4	7.9	8.1
15. Managers share positive experiences.	7.2	6.9	6.5	8.6	9.0
16. The management implements new ideas in leadership.	7.9	7.1	6.9	8.0	7.1

Source: Torokoff, 2010

As can be seen in Table 2, there is a noticeable gap between the answers given by the people that belong to the management pyramid (top executives and middle managers) and by workers/specialists. The gap is less evident in micro-enterprises which do not have middle managers.

The top managers of medium-sized and small enterprises see their businesses in a much better light. This also applies to middle managers. Cooperation and information flow in the management is smoother.

If workers/specialists do not know or have not been introduced the company's vision and goals, they tend to be poorly motivated and unenthusiastic about their work. The management and middle managers have to work together to create a common vision and explain business goals to employees on every level. In order to increase

productivity, it is extremely important that workers who are most directly involved in the production process were highly motivated.

Here are some of the most extreme examples of the answers given by workers/specialists to the open question “*What is your company’s vision?*”

T78: “*Balanced score-card.*”

T102: “*Niggers don’t need to have a vision.*”

W59: “*Extend production to India and liquidate this company.*”

S291: “*Making a big profit by cutting costs (including pay).*”

As regards goals and needs, an answer characteristic of specialists was: W43: “*Workers have to do more and more work, but get paid less and less. The only thing the owner cares about is growing profit margins. Otherwise the production will be taken to India!*”

These examples help to expose some of the shortcomings on the part of leaders. A vision created by a group of leaders often relies on the traditional position of power (Nolas, 2006). Workers usually sense most clearly that they have no say in goal-setting. Equally, if the people closest to the working process – workers/specialists – make suggestions to middle managers but nothing changes, many valuable ideas go wasted. The statement about having regular interviews between workers and managers (including performance assessment and development options) typically gets low scores. An example is the answer given by specialist A50: “*Conversations with the immediate superior are very rare. Promises and reality do not match.*”

In one medium-sized company the following important conflict pairs and groups emerged:

- *German business culture versus Estonian business culture;*
- *Estonian enterprise and owner;*
- *Workers and “the office”;*
- *Different production units.*

The management skills of middle managers and a clash between attitudes become immediately evident if the management does not discuss the most important question with workers/specialists: where is the company heading? Additional factors here are education, age, sex, community membership, etc. Different groups hold different views which should be explored.

It can be seen that middle managers pay minimum or no effort to communicating the vision and goals to workers. It is all about attitude, management culture and values.

Here is a comment by middle manager T351: “*Workers need to fulfil their tasks. Interviews with workers are a waste of time and not important. Plans need to be fulfilled!*”

Middle managers have to fulfil certain tasks and also work with people. Yet they seem to prefer tasks to people. Fulfilling tasks and goals is something that can be measured. However, working with people, managing human relations and forwarding the ideas of the “*big bosses*” to employees are some of the most unpleasant tasks for (middle) managers.

In micro-enterprises the situation is much better and evaluations much higher.

A manager of a micro-enterprise:

M249: *“If we did not constantly discuss work issues, relationships would be tense and deadlines in danger...”*

The management is the most informed unit of the company and they see the company's development as a whole. This cannot be said about workers/specialists.

The author believes that the abilities that people have should be developed to their maximum. The inherent entrepreneurship hidden in every person should be employed more in achieving the business goals of an enterprise. This requires a good recognition system. However, here another problem is evident – the recognition given to managers is different from the recognition given to workers/specialists.

Manager S351: *“Being recognised as a manager is a great motivator. Unfortunately I am very demanding myself and my employees do not get much praise from me...”*

An answer typical of the workers of medium-sized enterprises was: *“It's better not to poke my nose into the affairs of the bosses. I am happy if I don't get laid off, that's all the recognition I dare to expect!”*

If workers are informed of results and indicators, they get both positive and negative information and they know what is expected of them, where the company is heading and how they can contribute, they will be more dedicated to work and more productive. Unfortunately, relying on the answers to open questions, it can be generalised that recognition of workers/specialists has been very modest.

An example from production worker W97: *“Operative information is exchanged with the supervisor, conversations are very rare. Workers are assessed behind their backs.”*

It can be concluded that managers should encourage employees' personal development and mastery of skills. People who are given a chance to develop need moral support rather than external motivation to achieve their personal goals. Motivated people are more dedicated and willing to learn and be recognised as personalities. Managers need to be open and forward adequate information. They should be partners creating a positive atmosphere rather than big bosses giving orders and causing fear.

Communication and talks between different levels help to reduce the number of different interpretations.

When looking at the statements characterising personal mastery, the most prominent factor is an understanding of the quality of work. Manufacturing companies exercise regular quality control, as quality determines profitability. In this respect, tensions between workers/specialists and managers are higher in medium-sized and small enterprises. The following answers given by workers are good examples.

W30: *“The manager does not see the volume and difficulty of the work.”*

S47: *“I’d focus more on the training of workers, because well-trained workers can find a solution to every problem and they want to decide and take responsibility themselves.”*

In order to increase productivity, the training and development of employees are of utmost importance; the application of knowledge and exchange of experience even more so. A typical answer given by workers is: *“Cheap labour; managers rather spend money on training themselves...”*

Unfortunately, the people that are closest to the production process, i.e. workers and specialists, do not exchange experience gained from the implementation of innovations (see Table 2, III-9, IV-11, 12, 13, V-14) which eliminates an important chance for them to exchange ideas and reach a common understanding. This may indicate that people try to suppress their differences and good ideas.

Relying on the answers given to the open questions in the survey, it can be concluded that managers tend to guide processes through control and are afraid of the risks involved in including workers/specialists in the development processes. This shows that the behaviour of managers is crucial for learning and productivity growth. In order to raise productivity leaders need to be open to criticism, encourage individual initiatives, the learning and implementing of new skills and the ability to initiate action.

Different groups gave the most unified answers to the following statements: *“Managers share positive experiences. The management implements new ideas in leadership. All employees have a common understanding of the quality of work.”*

Micro-enterprises lacked dramatic contrasts: the answers given by managers and workers were more similar compared to small and medium-sized enterprises. Hence, the smaller is the personnel, the bigger is the social control and the more active is the communication. In manufacturing companies where the management considers the suggestions and ideas of line workers, productivity is higher. Keeping a competitive advantage or even survival greatly depends on the quality of work and good cooperation between employees. A favourable emotional climate and positivity in the company were also predominant in open answers. For example:

L241: *“Our micro-enterprise is capable – we keep winning competitions in Europe!”*

M209: *“Our small size is our power and wisdom. We have excellent workers. Bad ones would not last here!”*

Relying on the survey it can be concluded that the weakest chain is lack of vision. Spreading new ideas is modest and there is no information flow from workers to top managers. Recognition and motivation are scarce. Unfortunately these factors have a strong effect on productivity growth, not to mention innovation.

Data analysis showed that generally there is a big difference between the answers of workers/specialist and managers. Relying on the analysis of the answers, it can be said that the key role belongs to middle managers whose leadership skills, especially communication skills, need to be improved.

A summary of the answers to the question “What would you change in your enterprise and why?”

It can be seen that the biggest need is for information (see Figure 2). Cooperation relations between managers and workers/specialists are also considered an asset. The need for training and learning by workers/specialist may, on the one hand, be high due to the need to learn other professions to prepare for loss of job. On the other hand, many specialists said that they are in the middle of training and need the company’s material support to pay for the training.

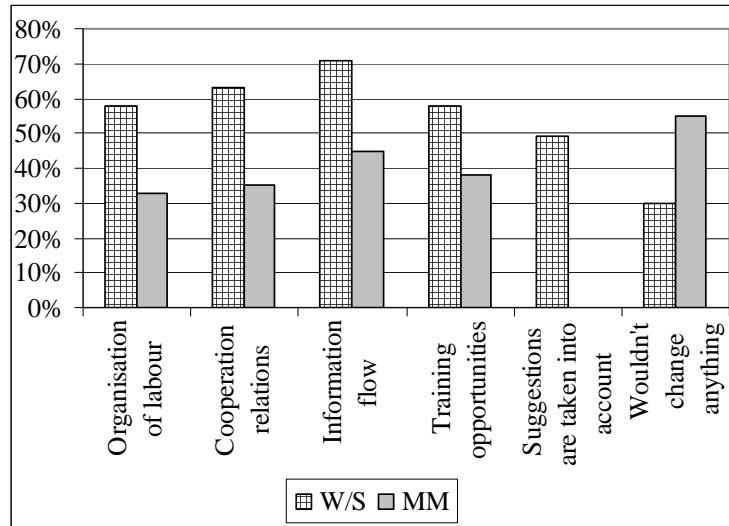


Figure 2. What would respondents change in their enterprises (Torokoff, 2010)

Simple communication by asking “How are you?” may become a bridge of trust between a manager and a worker and lead to smooth cooperation. The answers to open questions show that workers/specialists are more active and express their needs and expectations more clearly, which is an excellent springboard for middle managers to take cooperation to all levels because workers/specialists are very open to development processes. Productivity will grow and the business will develop only if the vision of the enterprise is implemented by all employees bearing in mind their personal goals and the goals of the company.

If attention is paid only to production processes and results and people as the driving engines and participants in those processes are neglected, productivity growth will be prohibited. In order to have more effective workers more open to changes, managers as information holders need to act rationally and far-sighedly. Fair standards introduced in interviews with workers are good motivators. Every employee needs to understand the motives behind each activity and how they are linked to long-term plans and goals. Employees need encouragement and guidance in this respect. More experienced and skilled employees can be used for in-company training. It gives an opportunity to exchange experiences and implement innovations without additional resources. It will also show employees that there are valuable. Quick feedback on disturbing factors in the working environment is also a matter of communication: often minor details, such as “drought”, “unpleasant behaviour of a colleague”, etc.,

may influence productivity and the will to work. The working environment can be made more constructive by a positive, caring and supportive attitude and by noticing co-workers, as was mentioned by employees in micro-enterprises.

Comparative survey; findings and discussion

No strategic decisions to develop OL were planned in the bank within the two years under study. The results of the first and the second survey in the service company did not vary much (see Figure 3). Open responses revealed that, e.g., managers were struggling to control conflict situations because more openness in cooperation and co-learning heightened the need to pay attention to and prevent mistakes. Acknowledging other facets of the problem may cast negative light on colleagues whether they are subordinates or leaders. Leaders and employees lack skills and behaviour patterns for spreading inconvenient information. How to make conflicts work in favour of organisation development? Middle managers believe that it was necessary to create a situation where employees from all levels could feel free to speak about what is important for them in the organisation and the management and colleagues would actually listen to them (Allikivi, 2009).

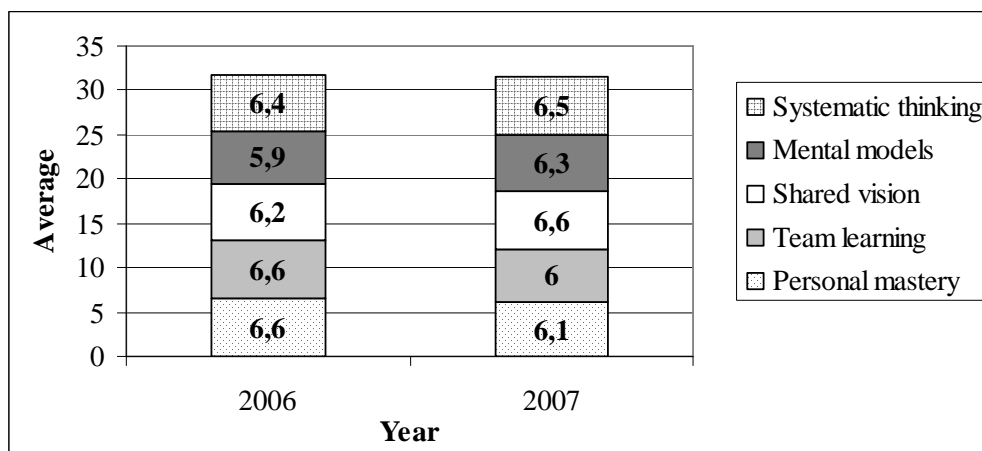


Figure 3. Characteristics of a learning organisation in the bank in 2006–2007 (Source: Allikivi, 2009).

Here we can see the disadvantages of the “top-down” vision: sometimes it is hard for the employees to understand it and they follow it passively because they do not feel their own importance in it. It may suppress their motivation for self-development and team-learning compared to the first survey. A vision created by a group of leaders often relies on the traditional position of power (Nolas, 2006). Managers have had a chance to discuss the topics in question and have better understanding of many issues as they now have the background information. Free responses showed that employees and specialists were much less informed. They had only received certain bits of information which was why they may have had difficulties in seeing the bigger picture and this in turn may have lead to insecurity, fear and sometimes even opposition. Bank employees agreed that the company’s goal was to develop and offer high-quality services and greater satisfaction to its clients. However, there were also responses that the bank management needs to carefully analyse as they contained ignorance, superficiality, conflicts and bitterness. Relying on the comparative study

the bank can be seen as an organisation following the single loop learning model where basic beliefs have not remarkably changed.

Some of the findings of the survey as well as the whole questionnaire of a LO have been used for drafting a strategic development plan in the manufacturing company MS Balti Trafo OÜ, the other company under study (Rohula, 2008). As can be seen in Figure 4, survey results from 2005 and 2007 vary much more than in the bank.

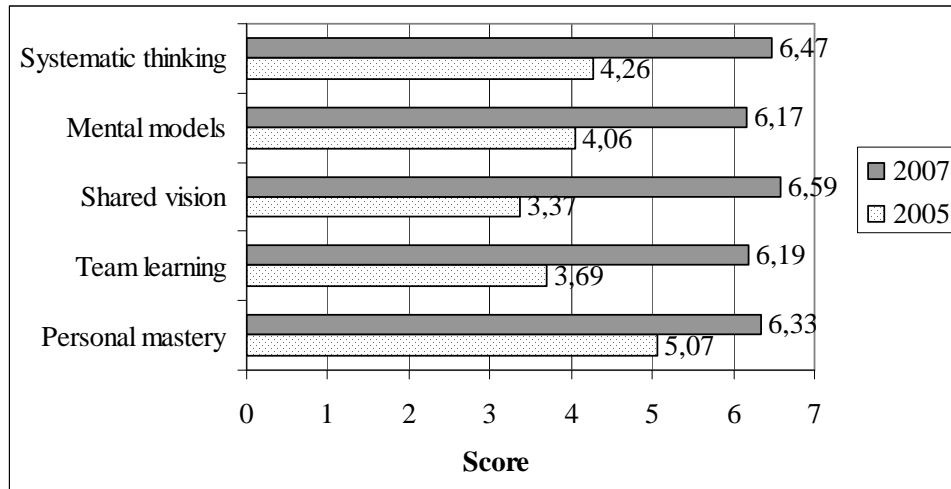


Figure 4. Characteristics of a learning organisation in MS Balti Trafo OÜ in 2005 and 2007 (Source: Rohula, 2008).

What brought about such changes? Until 2005 the company did not do strategic planning and lacked a vision of the future. The management only focussed on production. However, in the same year a decision was made to draw up an export plan with co-finances received from Enterprise Estonia (EAS) and participate in the implementation programme of the export plan. Within this programme, the company's goals and vision were set and an action plan was drawn up to meet the goals. This gave the whole organisation a clear direction of movement. Before the company had lacked a clear vision and employees had never had a chance to share their own development with the company which had created a situation where the employees and the management were going into different directions. Often people just followed orders and there was no meaningful participation. The situation could be described as competitive rather than cooperative. Organisational development was modest. The fact that the company once again had a manager and leader encouraging his employees to be open and share experiences in various meetings certainly played an important role in getting better scores in the 2007 survey. In the period of changes the company did not have a manager, and the German owners were often inadequate about the local situation while the "key people" running the company lacked necessary skills and experiences. Important guidance and team-thinking ability came from an external consultant whose skills and advice were, for three years, employed for the benefit of the company's development.

Here are some examples. The comparative survey highlights remarkable variance in answers to the statement "We have a common vision of the company's future in 5 years that we have all discussed together". Employees gave very low scores to this statement (k.3.92; sth. 2.40), while leaders gave relatively high scores (managers: k. 7.50; sth. 1.91; management: k. 7.0; sth. 1.73). This shows different levels of

information: leaders who draw up plans for and discuss the company's future have a much better idea of the development directions than employees who do not participate in these activities. Another example is mental models which got an average score of 4.06 points (sth. 1.56) in 2005 and 6.17 points in 2007 (sth. 1.22). Systematic thinking was given 4.26 points (sth. 1.94) in 2005 and 6.47 points (sth. 1.15) in 2007. Factors influencing the strength (scores) of these two characteristics mainly relate to values, thinking and seeing and analysing connections.

In general, politeness and respect towards colleagues is valued in the company. Such an attitude to work has been greatly influenced by its German partner company. MS Balti Trafo OÜ has adopted the German work ethics and punctuality, although a difference in the business cultures of the two countries also puts certain obstacles to sharing and explaining these values. In the German company matters are discussed behind closed doors between a small number of executives, and employees are informed in the written form through statements or orders. Such a form of communication often causes confusion and unnecessary tension.

When during the 2005 survey the company was lead mainly by the German owners and the above-described communication dominated, in 2007, when a manager was employed for the company, the situation changed. This is also reflected in the new scores. The tradition of general meetings was introduced. At these meetings employees got an overview of what had been done and what would be done in the future together with explanations on why certain decisions had been made.

Here we can see how much information exchange and explanations influence the formation of different thinking models and the understanding of the bigger picture. Undoubtedly getting involved in strategic planning also influenced the development of the two characteristics mentioned above.

Conclusion

Organising production in an unstable environment is a task of great responsibility and complexity. Of the 15 enterprises that participated in the survey, communication was most open among the managers of medium-sized and small enterprises. However, the potential of workers/specialists had been unexploited. Creating a very good working environment and conditions by top managers is not enough to increase productivity.

The contribution and task of the middle manager as the key person should be to create such an environment for communication that fosters the exchange of information, experiences and skills. The analysis of open answers and the statements about communication allow the author to conclude that until employees in medium-sized and small enterprises are unfamiliar with the vision of the company, they cannot fully contribute and devote themselves to achieving the goals of the enterprise. In those enterprises where managers are former workers, middle and line managers need to develop and systematically acquire management skills. If middle and line managers have good management skills, including excellent communication skills, they will be able to communicate with all employees, share their experiences also with workers/specialist and mediate ideas between the top management and employees to ensure uniformity of action

The findings of the comparative survey of the manufacturing company show that this organisation experienced double loop learning. Redefining the goals, values and basic beliefs in the company brought about a change in the learning and organisation culture.

The surveys highlighted the need for strategic planning and the leader's influence on the company's ability to function as a whole. The analysis showed that more attention must be paid to developing leaders' management skills and knowledge.

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Appendix 1. Results of mapping the learning organisation in patterns

Production companies sample (n = 326) (See Article 3)	Workers' sample (n = 187) (See Article 3)	Initial model: Three-dimensional organisational learning framework (OLF – 3D)	Schools (n = 198) (See Articles 1, 2)	Education sample (n = 669) (See Article 3)	Managers' sample (n = 137) (See Article 3)	Companies sample (n = 487), strict criteria (See Article 3)	Companies sample (n = 487) (See Article 3)	Initial model: Senge's learning organisation (LO) model (S)
Internal business environment of an organisation's development (17 items)	Internal environment, Goals & Development (23 items)	Individual and joint learning (17 items)	Individual and team/joint learning (6 items)	Building shared vision & Learning (14 items)	Internal environment & Learning (10 items)	Building shared vision & Team learning (15 items)	Personal mastery (4 items)	Personal mastery (9 items)
							Learning environment (4 items)	Team learning (12 items)
External business environment of an organisation's development (4 items)	Main processes (4 items)	Main process (16 items)	Main process (6 items)	Main process (5 items)	Main process (4 items)	Main process (5 items)	Organisation development & Building shared vision (14 items)	Building shared vision (10 items)
							Shared values (4 items)	Mental models (11 items)
X	X	Mental systems (19 items)	Values (8 items)	Shared values (4 items)	Shared values (6 items)	Shared values (4 items)	System thinking & Mental models (5 items)	Systems thinking (10 items)

Note: *The shaded fields show that features which emerged were different from initial models, albeit very close to them.

Source: Torokoff, 2009