Organisational learning barriers in distributed product development: observations from a multinational corporation

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Abstract
An increasing share of manufacturing, logistics and R&D activities takes place today in a number of geographically dispersed organisational units. The units involved can be different autonomous companies or a number of focused subsidiaries. Using the CIMA-methodology and its computerised questionnaire as an analysis and action research tool, organisational learning in distributed product development projects at a multinational company in the telecom industry has been investigated.
Organisational units with different operational focuses displayed differences in the types of learning to which attention was primarily given. Based on the findings, the role of communities of practice in distributed product development is investigated.

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Introduction
In many industries, the terrain of competition is increasingly moving from the level of individual firms to that of extended manufacturing enterprises (EMEs), consisting of a number of individual companies, relatively autonomous subsidiaries of a multinational corporation (MNC), or a combination of both. Consequently, new approaches and tools must be developed and existing ones adapted to enable and enhance collaboration between the partners involved. This is particularly true at the operational level of co-design, co-manufacturing and co-logistics, including the planning and quality management of these processes, as well as the strategic management of EMEs. The aim of all these activities is to enhance the performance, in terms of the efficiency, quality and delivery reliability, speed (time-to-market, delivery time), flexibility and innovativeness of the EME, relative to other EMEs. This is difficult enough for individual firms but even more difficult when several firms or company units work together, due to barriers that are related to the functional, geographical and possibly even time separations between the units involved.

Changing markets and competitive demands have meant that individual organisations have found it necessary to focus on their core business in order to remain competitive, while developing relationships with other organisations with complementary competencies at the same time. Consequently, competition is increasingly moving from inter-firm rivalry to that between supply chains and networks. In such an environment, local optimisation is likely to go at the expense of global optimisation and perhaps even be counter-productive. Instead, the goal should be to enhance the performance of the EME and break down barriers to learning to the benefit of all collaborative units involved. Active collaboration is required not only in manufacturing and logistics, but also in R&D in order to create and maximise synergy.

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between the capabilities of the organisations over time, while allowing each individual business to realise its own strategic goals. This requires a well-developed capacity to learn, not only at the levels of individuals or companies, but also at the inter-organisational level. This learning is the basis for collaborative continuous improvement.

**Continuous improvement**

Continuous improvement is the planned, organised and systematic process of ongoing, incremental and company-wide change of existing practices aimed at improving company performance (Boer et al., 2000). Key to the success of continuous improvement is an ongoing process of:

- plan (planning improvements);
- do (implementing improvements);
- check (whether expected performance has been achieved); and
- act (standardise the new practice).

The problem with continuous improvement is that the concept, which at first sight appears to be very simple and attractive, is often difficult to design, implement and develop successfully. However, collaborative continuous improvement requires “learning to learn”, or learning to improve ever more efficiently and effectively and to tackle ever-more complex improvement problems and challenges both within and across organisational elements of EMEs. While enhancing learning within firms is by no means easy, learning and continuous improvement on the level of EMEs is even more difficult to achieve, however necessary this may be under the current market and competitive pressures. The reason for this is primarily the existence of learning barriers related to the organisational, geographical and time separation between the partners within the EME. This leads us to the overall aim of this paper, which is to explore barriers for organisational learning in distributed product development.

**Learning, culture and practice**

The changes mentioned above have resulted in an increase in workforce diversity, which together with rapid and major changes in technology, product innovation, organisational structure and operations means that those companies that are flexible and respond to these changes quickly and successfully are able to link awareness with action will have a competitive edge. Organisations that are aware and adapt existing structures and practices to develop a more open, flexible system encourage an environment in which all individuals are able to learn and contribute. Those organisations at the forefront of meeting the challenge of managing diversity and complexity will be rewarded with greater employee satisfaction, higher retention rates, productivity and, most importantly, improved organisational performance. An important issue that many managers need to address is the new demands for learning in EMEs. This calls for increased understanding of how such learning takes place and what mechanisms managers can use to influence it in a fruitful manner.

**Organisational learning**

Organisational learning can encompass a wide range of activities and processes. A concise view of a learning organisation is put forward by Hodgkinson (2000, p. 159):

> ... a learning organisation is one where there is an encouragement of all employees to engage in the learning process through dialogue, experimentation and learning from one another.

Some examples of this are Argyris and Schön’s (1978) single- and double-loop learning, Boland and Tenkasi’s (1995) perspective making and perspective taking, and McGill et al. (1994) who distinguish between adaptive and generative learning. In the specific setting referred to in this paper, i.e. product development, these rather abstract concepts can be seen to correspond to the concepts of problem solving and problem framing (Schrader et al., 1993). Problem solving aims at finding the information needed to solve a given problem, while problem framing refers to the basic structuring of a problem, and can result in a radically different formulation in which the initial conditions have been altered.

**Learning and culture**

Culture is defined by Hoag et al. (2002, p. 11) as:

> ... the emotional environment shared by members of the organization.
They argue that the environment reflects how people feel and that their feelings are developed through shared perceptions of daily practices. So specific work roles may be described as having a culture. The nature of training, education, knowledge, skills, values, ethics and code of conduct associated with the specific work role may establish this culture. For example, groups of engineers, accountants, and marketing personnel may be viewed as each having a unique culture with which individual members identify. Schein (1996) put forward three distinct cultures of management. He argues that organisational innovations such as product innovations fail to survive and grow because of learning failures. He further argues that a principal reason why organisations have difficulty in learning is because they consist of an internal operator culture and two externally based cultures, which he calls an engineering culture and an executive culture. Unless these cultures are aligned, he argues, there will be failures in organisational learning. In the broadest sense this concept could be extended to the primary role or function of departments within an organisation. Each group may be described as sharing a core of common behavioural characteristics directly associated with their respective function within the organisation. In general the performance of groups may be identified in the areas of communication, group cohesiveness and interpersonal relations.

The concept of intra-organisational cultures (sometimes called sub-cultures) associated with divisions, departments, groups, work teams or professions is an issue that needs to be addressed. Those organisations that confirm the value of diversity by creating an atmosphere that encourages respect for all differences, between individuals or groups, will result in improved relationships, productivity and profit. Group affiliation and conformity are a strong determinant of the behaviour of individuals within organisations. Amongst members of any work team or group there exists a broad range of individual differences, yet the group may be perceived to comprise members with shared common beliefs, values, ethics; they sound, act and appear to think alike.

Learning and practice
Closely related to the discourse on sub-cultures is the concept of communities of practice (Brown and Duguid, 1991), which has been used to shed light on the relations between group learning, work and innovation. Within communities of practice, which are informal collectives working together both within organisations and across organisations, learning is an integral part of day-to-day working and, as work is a socially constructed activity, individual learning is inseparable from collective learning. For example, Brown and Duguid (1991) argue that through activities such as narration, collaboration and social construction members of communities of practice establish models that assist community members to overcome difficulties they encounter and that they develop shared means for interpreting complex activities and these are formed, transformed and transmitted throughout the group. These communities of practice can span the boundaries of a single organisation and can thereby be a positive force in overcoming barriers to learning and collaborative continuous improvement.

Organisations that are determined to improve their processes, including their product innovation process, need to recognise the importance of learning. Once they have recognised the importance of learning they will need to identify and implement management techniques and practices that encourage learning throughout the organisation. For many organisations this will require a transformation in behaviours, attitudes and even organisational culture. In any transformation the learning behaviours adopted must ensure that learning at the organisational level is more than merely the collective knowledge of its members shared throughout the organisation (Baldwin et al., 1997). The organisational change must result in learning behaviours becoming embedded throughout the organisation. For this embedded learning to occur, organisations, according to Schein (1996), need to confront the implications of differing occupational cultures and this means that firms need to find ways to communicate across cultural boundaries.

Unless trained and encouraged to think differently, most people think in a structured way, ordering their thoughts to line up with the established patterns and beliefs that are time-honoured (Morgan, 1997). This process of structured thinking for handling various decision criteria is found in most
plan-do-check-act cycles of continuous improvement where actions and strategies are repeatable on a consistent basis. The real challenge for collaborative continuous improvement is to use and revise these cycles across organisational boundaries and Brown and Duguid (1991) argue that members of communities of practice are best placed to do this as they are already collaborating within communities that span these boundaries.

Learning at work involves putting knowledge into a context in which it has meaning and having that meaning verified by the group members that accept it and use it. Brown and Duguid (1991) argue that what is learned cannot be separated from the conditions in which it is learned. As communities of practice work and learn together, they value skills, information and knowledge that add to their work practices. In this way they learn to function as a community and as such they acquire the particular community’s viewpoint, language and culture.

Clearly, this implies that there are strict limitations to the role that communities of practice play with regard to organisational learning. While these communities appear to be very useful for learning within a certain practice, their effect on learning across communities could be questioned. Hence, practice-based learning is most certainly not sufficient but needs to be complemented with other modes of learning.

**Barriers to learning**

The literature on organizational learning paints a rather optimistic picture, suggesting that learning is a rather natural process that progresses smoothly after being initiated. In practice, however, organizational learning is not an automatic and certainly not an effortless process. There does not appear to be a systematic analysis of barriers to organizational learning (Berthoin Antal et al., 2001) in the literature. In general most of the barriers that are referred to have been derived from theory and they have not been empirically and systematically explored, despite problems encountered in practice, although some work is being done (see, for example, Tucker et al. (2002) who have identified first-order problem solving as a barrier to double-loop learning).

The barriers put forward in the literature can be grouped into three categories:

1. interrupted learning processes;
2. psychological and cultural blockages to learning; and
3. obstacles related to organizational structure and leadership (Hodgkinson, 2000; Tucker et al., 2002).

Levinthal and March (1993, p. 101) in their article on learning myopia remark that: ... the same mechanisms of learning that lead to the improvements also lead to limits to those improvements.

Hedberg (1981) points towards limitations in humans' short-term memories that prevent many stimuli from being perceived. He postulates that, in order to learn, the organisation must unlearn in order to make way for new responses. Obstacles to learning are related to the individual, the organisation and the relation between individual and organisation. The types of obstacles that are observed also depend on the model of learning that underlies the research (whether behavioural, cognitive or both): Leroy and Ramanantsoa (1997) remark that blocked learning occurs when the tension between cognitive change and behavioural change cannot be resolved.

From a more managerial viewpoint, a distinction between barriers on a group level and on an organisational level can be made, whereby the relationships between organisation members, group norms, group structure and composition of the group and the competencies in the group can act as obstacles. On an organisational level, a distinction between task design and work systems (for instance, the amount of bureaucracy), reward systems, the organisational culture and the organisation design (the degree of centralisation, horizontal liaisons) can be made. These job design and work systems often encourage managers to increase their control and to try to ensure they are in the position to limit individuals’ access to resources and to allocate resources only to areas that are seen by shareholders as winners. The costs associated with R&D and product innovation ensure that they are rarely well regarded by shareholders who are only interested in a short-term return on their investment. Similarly, managers who maintain control are rarely willing to empower workers in ways
that allow them to take responsibility for monitoring their own performance. Many organisations discourage the expression of negative feelings and view the expression of negative feelings as criticism of the company and the expression of disloyalty. It appears from the work of Brown and Duguid (1991) that members of communities of practice operate outside these boundaries and have established practices that allow them to avoid many of these barriers to learning.

It is hardly surprising that geographically dispersed modes of work may cause communication problems and thereby limit knowledge exchange between collaborating parties. However, as learning in organizations is influenced by social structures, we find it reasonable to state that learning in EMEs is potentially more difficult than in smaller and more homogeneous organizations, as EMEs usually comprise significant diversity with respect to culture and practice. These differences may give rise to different learning barriers, rendering distributed work more difficult and less effective. This far, few empirical studies of learning barriers can be seen, and in particular there is a lack of studies addressing this problem in geographically distributed settings. This leads us to the overall research question in our study, which is “How does geographical dispersion impinge on learning?” In particular, we do not want to limit the set of factors investigated to pure communication or technology issues, but also consider the dimensions of culture and practice. Hence, a second question to be investigated is “Does professional or occupational culture affect knowledge sharing and transfer?” As it is difficult to observe when learning takes place, we have chosen to focus our study on identifying and analysing impediments to learning, as these are more easily captured through the methodological means available.

Thus, the third question is “What are the barriers to learning between different locations in EMEs, involved in interdependent activities?” This leads us to a description of the research methods used and the specific research setting.

**Research methodology**

Although CI and learning are frequently discussed topics, the research on organisational learning still is far from mature. There is quite an amount of conceptual and so-called “attention” literature, but empirical research is scarce (Easterby-Smith et al., 1999; Gieskes, 2001). The insufficient in-depth knowledge and understanding of CI and learning processes do not help management theory to develop practical instruments to help improve and facilitate these processes. The Euro-Australian (EC) research project CIMA (ESPRIT 26056) has attempted to bridge this gap and has developed a methodology to support continuous improvement and learning in Product Innovation Processes (see Boer et al. (2001).

The CIMA project started in 1997 with an extensive literature study into the state-of-the art in the fields of knowledge transfer in product innovation processes, continuous improvement, organisational learning and enabling mechanisms for facilitating and stimulating continuous improvement. This resulted in a draft model on continuous improvement and learning that was tested for its validity and reliability through in-depth case studies in several companies in different countries. The draft model was refined into the final CIMA model and a research methodology was developed and tested that, in 1999, together with the CIMA-model was finalised into the CIMA methodology.

The model underpinning the CIMA methodology describes the improvement and learning within product innovation in terms of a number of interrelated variables:

- continuous innovation (CI) performance;
- behaviours underpinning CI and learning within product innovation;
- levers that can foster these behaviours;
- company contingencies; and
- continuous learning/innovation capabilities.

The relationships between these variables are depicted in Figure 1.

All the variables (except for the capabilities that are still under development) have been operationalised in a self-administered questionnaire (see also Boer et al. (2001); Coughlan and Harbison (2000)) that forms one of the four closely linked elements that together make up the CIMA methodology: (1) The CIMA process, aimed at mapping the current level of continuous improvement and learning in product
innovation, identifying strengths and weaknesses and then suggesting improvement activities to stimulate continuous improvement and learning.

(2) The CIMA model, a behavioural model of learning which is underpinning the methodology.

(3) The self-administered CIMA questionnaire to collect data on the situation in the participating organisation.

(4) The CIMA knowledge base, in which all the data are stored. The knowledge base provides the basis for intra-firm and inter-firm comparison leading to company-specific suggestions for improvement (benchmarking facilities).

The CIMA methodology is a research tool aimed at diagnosing organizational learning in product innovation processes. The computer-based questionnaire makes it possible to capture and analyse learning behaviours in an efficient manner. In particular, three dimensions of learning relevant for analysing learning in EMEs are addressed in the CIMA methodology. The methodology can be combined with workshops, focus groups or interviews to elicit detailed answers to questions such as:

Q1. Learning frequency. How often does learning take place? Is the speed of learning increasing or decreasing over time? What is done to speed up learning? Is there sufficient slack for exploration to take place, or is there a strict focus on knowledge exploitation?

Q2. Learning extension. Is learning limited to single units or does it span several of the organisations involved in the EME? What role do communities of practice play in the learning across organisational boundaries? Do national culture and organizational culture and sub-cultures affect learning?

Q3. Learning type. Is learning primarily of the problem-solving type, focusing on finding the necessary information to answer given problems, or is the framing of problems questioned in order to be able to generate more radical formulations that lie outside the old ways of thinking of a problem? Are there differences in focus between the involved parties?

Q4. Learning barriers. Are there any factors that inhibit learning, have you experienced barriers that reduce the organisation’s ability to learn, what prevents individuals from engaging in learning activities and exhibiting learning behaviours?

So that as well as mapping the behaviours and enablers/levers for stimulating and improving learning behaviours, also the perceived learning barriers are drawn up by the users. This allows the respondents to add clarifying information to the chosen answers, but it also makes it possible to bring up learning barriers that are not explicitly captured by the elements in the model, e.g. cognitive aspects.

By the end of 1999 the CIMA methodology was used in over 80 companies in Europe and Australia. A first analysis of the entire CIMA database on clustered learning in product innovation processes (Hyland et al., 2001) and the barriers for learning (Gieskes and Hyland, 2002) indicated that different communities of practice do exist, using heterogeneous sets of tools and routines for stimulating and improving learning, which in turn might have an impact on barriers for learning. It was also found that different management cultures or occupational clusters have distinct views of learning behaviours that are accompanied by different values and beliefs on effective means to effect learning. These results indicate that, from an organisational learning perspective, managers need to develop instruments and tactics that encourage learning, taking into account the existence of different cultures. In EMEs the issue becomes even more relevant since functional, geographical and time separations between firms involved may increase the number of different sub-cultures and communities of practice.

Using the CIMA methodology as an analysis and action research tool,
organisational learning in product innovation processes at six locations in two European countries, representing four different subsidiaries of an MNC in the telecom industry, have been investigated. The MNC subsidiaries represent different stages in the EME. Five of the sites are involved in R&D. Four of these are mainly involved in product development activities while the fifth site also performs tasks of research character, in terms of more substantial technology development. The sixth site is a manufacturing plant.

At all the six different company sites, project managers and other key individuals in the product innovation field filled out the computerised questionnaire, resulting in full data sets from 14 people. At two of the sites the filled-in questionnaires were used to generate feed-back reports, which served as a basis for discussions in a follow-up workshop in order to identify problems related to CI and learning as well as means that can be used to stimulate and facilitate fruitful learning behaviours. At the other four sites a different approach was used to gather more qualitative data regarding learning patterns and potential improvements. There, interviews were performed with the four people who filled out the questionnaire, as well as with another 15 key individuals.

Results and discussion

A first observation that can be made is that the main experienced barriers to achieving satisfactory organisational learning in distributed product development were not the increased difficulties imposed by geographical and time distances in exchanging information in an efficient and effective manner, but in getting all involved parties to understand one another and to work towards the same goals.

A number of different factors were mentioned by more than a single company representative as barriers to learning in the distributed product development activities in which they were involved. These were:
(1) differences in tolerance of time pressure;
(2) local patriotism;
(3) insufficient competence levels;
(4) cultural differences;
(5) re-organisations; and
(6) inflexible, hierarchical structure.

Of these, the last two can be considered as general obstacles to organisational learning and not related to the specific context of distributed product development. As such, they will not be explored in any further depth in this paper. The first four, though, display some features that depend on the particular nature of this way of working.

Differences in tolerance of time pressure – the single factor that was mentioned most frequently as an obstacle for learning was lack of time. More specifically, the lack of time reduced the possibilities to experiment with new methods and solutions, and put restrictions on the generation of reports and databases that could have been used within and between development projects. Large differences were noted between the different sites with respect to this barrier. In units primarily engaged in project management, this was hardly seen as a problem. However, in the units oriented towards product and technology development, as well as manufacturing, the constant lack of time was experienced as frustrating as it put an effective limit on the search for new technical solutions. This indicates that a key issue for management is to handle differences in priorities and to achieve a balanced handling of urgent problem solving in product development projects and the long-term build-up of competencies needed for excellence in units involved in research, development and manufacturing. This barrier is related to interrupted learning processes: due to lack of time the entire learning process, that is the learning cycle, cannot be completed, which inhibits learning experiences and prevents the learning from being distributed and/or transferred to the organizational level. This is similar to the problem of first-order learning identified by Tucker et al. (2002).

“Local patriotism”, a term used by some of the respondents, has several meanings. A first significance is the not-invented-here syndrome, which according to some respondents is common. In particular the engineers were sceptical towards solutions from the outside. Another meaning of local patriotism is that some organisations had difficulties in accepting their role within a development project if another unit that for some reason was seen as an antagonist was given the task to manage the overall project. Even if this tendency was restricted to a few
units, this somewhat irrational behaviour stood out as a critical issue that rendered collaboration much more difficult, for instance, in terms of unwillingness to share information. To identify the factors contributing to local patriotism was more difficult. The allocation of more or less all the administrative power to a single unit, with little involvement from upper-level management, could be interpreted by other involved organisations as if they played less important roles in the development process. However, other explanations not captured in this study, such as the historical evolution of the different units, should also be taken into consideration. This barrier relates to both the category of psychological and cultural barriers and obstacles related to organizational structure and leadership.

Insufficient competence levels are a barrier related to the one mentioned above. The problem referred to here is that people at one site do not have sufficient knowledge about the activities of another site in order to take decisions. This is the result of a far-going specialisation and partitioning of tasks. As mentioned earlier, some units are primarily concerned with project management, while others almost exclusively handle development or manufacturing. Hence, the information redundancy (Nonaka, 1994), or absorptive capacity (Cohen and Levinthal, 1990), between the different involved sites was sometimes too small to make fruitful communication possible, in particular regarding more complex technology issues. Engineers at the development sites felt that too much attention was given to pure project management matters and some of them openly criticised the meeting forms used within the development projects as they did not allow for the joint handling of problematic issues but only served as information channels.

Cultural differences of different types were put forward as potential barriers for learning. A few people mentioned that differences between national cultures could cause problems. However, also when product development took place at different sites within a single country, cultural differences were mentioned as a troublesome issue. What was referred to in this sense was the experienced differences in corporate culture that could be found between the involved parties, which in some cases appeared to restrict learning. In particular, different interpretations of such central tools as the company-wide project model led to misunderstandings and frustration. This problem follows as a result of the high degree of autonomy that most units within the MNC in question have when it comes to choosing how to work. Another example of this is that different sites are allowed to use different databases to store and retrieve product information. It hardly needs to be said that this may be negative for organisational learning.

At an overall level, the findings in this study clearly indicate that there are a number of potential barriers for organisational learning in geographically distributed product development. Recalling the earlier reasoning about communities of practice, it seems as though the effects of these have been very limited in the studied development projects. In fact, respondents in the involved organisations tended to represent different communities-of-practice, as they had different priorities, revealed limited knowledge overlap, and used heterogeneous sets of tools and routines, which in turn led to inefficiencies, misunderstandings, and lost learning opportunities. Organisational units with different operational focuses clearly showed differences in the importance given to knowledge creation and problem framing, and the efficient utilisation of existing knowledge to solve given problems, respectively. This tendency was further reinforced by the allocation of project management responsibilities to specific units, resulting in a short-term orientation that was perceived as negative for the long-term organisational learning needed by units involved in research, development and manufacturing. In Schein’s (1996) terms all these observations point to a clash between two sub-cultures, the executive culture and the engineering culture, which, it appears, has not received sufficient attention from management.

Conclusion

At a general level, the recently awakened interest in communities of practice is arguably a positive development for the field of organisational learning. To deal with knowledge and learning in an abstract and
detached manner radically reduces the possibilities of arriving at actionable implications. However, the absolute positive value of communities of practice needs to be questioned. It is often argued that these communities are valuable because they span organisational boundaries and therefore have an inherent potential to bring new knowledge to the companies involved, though how much of this knowledge is kept at an individual level and how much is shared throughout the organisations is unclear. Furthermore, the difficulties in appropriating the value that the communities’ knowledge can create need further investigation.

Based on earlier research on communities of practice (e.g. Brown and Duguid, 1991), it is clear that they are an important means for inter-organisational learning as the communities often spanning firm boundaries. In this study, such effects were not observed. Actually, it did not seem as though many development activities could be related to boundary-spanning communities of practice. Instead, the communities of practice seemed to include primarily employees at single units. This is a feasible interpretation, as the units investigated do not resemble “traditional” networking companies, in which a large number of professions are represented, but instead can be seen as large functional units with increased autonomy. One explanation of the observed barriers could thus be that in smaller companies the clashes between executive and engineering sub-cultures take place internally within the companies, while collaborations between companies are handled by individuals from the same community of practice.

At the sites described in this paper, most individuals within a single site could be regarded as members of the same community of practice, but the people with whom they interacted at other units are part of different communities or cultural groupings. Consequently, the clash between sub-cultures took place between the units, which seem to have influenced learning in a negative way. How this can be managed poses an important question for future research, as does the more general issue of getting intra-organisational cultural groups to recognise and value differences amongst one another, something that so far has not been addressed sufficiently to provide managers with the tools that they need.

It should be kept in mind that the performance in the product development projects described here in general has been very high in terms of meeting required lead-times, cost and quality. What is seen here, however, is that there is room for substantial improvements when it comes to inter-organisational learning throughout the EMEs. One area that could definitely be addressed in order to improve the learning is human resource management, as more extensive initiatives in that field seem to have been very rare in the company investigated. Another possible way to handle this issue could be the introduction of new managerial roles in which the responsibility of handling the tension between innovation and efficiency is made more explicit (Magnusson, 2000). Even if autonomy is highly valued by people in the units involved, an increase in senior management’s influence with regard to tools that enable learning (levers) may help reduce if not overcome barriers. For example, if senior management insisted that all staff involved followed standing operating procedures in the use of databases and the interpretation of project models, this would eliminate a number of disturbances and would most certainly facilitate learning.

The key question addressed in this paper was: is it possible to identify barriers to organisational learning? In the EME studied in this research there were clearly several barriers to learning and these are partly identified in the pre-existing literature. Cultural differences are reflected in local patriotism and differences in the ways individuals respond to time pressures. Local patriotism is the result of localised enculturation, which results in an ingrained attitude of “this is how we do it here”. Similarly how a work group responds to time pressure reflects how they expect the wider organisation to respond to the group. If the group has always been given leeway and has not been forced to conform with time requirements, then the members of the group will expect to be given additional time when they feel they need it. In managing an EME senior management needs to be aware of the differences throughout the extended organisation and has to put in place strategies that first will enable and encourage learning and second will either break down existing barriers or inhibit the erection and sustainability of new barriers to learning.
References


Further reading


