ORGANIZATIONAL CULTURE AND ENVIRONMENT: DYNAMICS IN DYNAMICS. CASE OF ORDI

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Abstract. The paper looks at the potential influence of environment on the dynamics of organizational culture (OC) on the example of Ordi, one of the leading IT companies in Estonia. The environmental aspect is turned into the dynamics in the information techno-logical sector. Both qualitative and quantitative research was applied in the study. The paper proposes the hypothetical model of what kind of processes were taking place in this company from the early nineties and how OC received influences from global and local developments in the IT sector. The results show that Estonian IT sector company's dynamics is analogous with the global pattern, while the speed of development differs tangibly. The Ordi's OC changes follow the life cycle model, but the dynamics of external environment shortens the length of the stages of evolution.

Keywords: dynamics of environment; IT sector; Estonia; organizational culture; dynamics of organizational culture; case study

1. Introduction

Organizations could be handled as open systems getting influences from the environment where they act, but the influence is not only unilateral – organizations also target shaping and reshaping the environments for themselves. Those unilateral connections and lines are not always evident and the potential influence could be recognized only retrospectively. Though we are aware of reciprocity, we still analyze the one-way effect. In our study we have narrowed the focus. Firstly, an organization's essence is approached through a lens of organizational culture (further on OC). OC will be analyzed through its types in the framework formed by two dimensions – *flexibility* vs. *stability* and *internal* vs. *external* focus. Secondly, we analyze the nature of business environment through the angle of its complexity and dynamics.

The aim of the present study is to indicate the potential influence of environment on the dynamics of organizational culture on the example of one IT

sector company. Although the study is retrospective covering the period from the 1990s up till today, we also attempt to outline some possible patterns for future.

Estonia serves here as a proper example in various respects. During the transition period Estonia passed essential changes in numerous areas of social life – rapid changes in the whole business environment have taken place which have also left traces on the organizations performing in that environment[1]. The hypothetical relations between the organization's environment and its OC will be analyzed on the example of info technology (IT) sector which began flourishing in the 1990s, being one of the recent and most dynamic sectors in Estonia. The case of Ordi is in our interest, because it is one of the first IT companies in Estonia – it started in 1992. Almost 15 years later, in 2006, 100 employees work for Ordi and the company possesses branch offices in major cities of Estonia (Tallinn, Narva and Pärnu). It has become one of the leading companies in IT sector in Estonia.

The theoretical part of the article gives a brief overview of OC and the dimensions of environment. Further, the development of IT sector on global arena and in Estonia will be discussed. In the empirical study the entity of changes in the sector will be analyzed and parallels will be drawn with the changes of Ordi's OC. Although the changes in IT sector will be analyzed mainly on local level (i.e. Estonian context) the comparison with global trends will be made as well in order to emphasize rather important differences.

2. Organizational culture from the perspective of dynamic environment of IT sector

Organizational culture has been defined as a "pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein 2004:17). Critical elements of OC are stability (culture is shared and rather stable because it defines the group); depth (it involves unconscious parts of organizational life); breadth as it covers all of the organization's functioning and patterning, because OC ties together the various elements (Schein 2004:14–15). Alvesson (2002:4) argues that culture is "central in governing the understanding of behavior, social events, institutions and processes". Thus OC influences essential aspects of organizational functioning and its central feature – stability interfere in two ways. On the one hand, OC keeps the organization together, but on the other, the culture may become a barrier in innovation process. Stability in this context does not exclude changes *per se*, but rather refers to the fact that transformation of OC is a slow process. Still, critical events (e.g. drastic changes in environment) may accelerate culture transformation.

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[1] For more detailed argumentation of the impact of transition era on Estonian organizations see Vadi and Roots (2006).

Although Schein's definition summarizes the essence of OC, it only hints about the sources of OC formation and how each of these origins influences OC. There is no univocal position about the culture formation, but the impact of general and specific environment (e.g. industry and regulations in the industry) on OC is clearly evident. Several authors (e.g. Padaki 2000, Chatman, Jehn 1994, O'Reilly, Chatman, Caldwell 1991) have stressed that OC of those organizations which belong to relatively homogeneous industries are similar. Trice and Beyer (1993: 300) also regard organizations as open systems, which are dependent on their environments. From that dependency reciprocal ties are created through which organizations are intertwined and linked with each other and with the environment as whole.

It is not always possible to differentiate how environment influences the processes in organization and it is even more complicated to bring out straightforward lines from organization to the environment it exists in. One could assume that these are processes that occur simultaneously and therefore specifications of those influences often remain theoretical and even hypothetical. In our framework we focus more on the matter what are the influences from the environment to organization. Trice and Beyer (1993) propose that influence of industry comes to the organization first of all through industry ideology which serves as a ground for organizational culture. Barney (1986) has argued that high-performing organizations share many common traits of organizational culture, but each organization benefits from those traits in a different manner. The threshold question here might be how flexible and responsive to the changes in the environment the organization is. We believe that organizational leaders and members filtrate and interpret the circumstances accrued from the external environment and that is possibly the reason why organizations performing in the same environment are still different as far as their cultures are concerned.

External environment could be handled from different perspectives. In the present paper we rely on the definition given by Duncan (1972:314). He defines external environment as the environment that consists of those relevant physical and social factors outside the boundaries of the organization or specific decision unit that are taken directly into consideration. The external environment could be determined through two dimensions – *simple-complex* and *state-dynamic* (Terreberry 1968, Duncan 1972).

The complexity of environment could be measured in terms of the factors which exist in environment and influence different subjects involved. If the complexity is low (i.e. simple environment) there are few factors, which are rather similar to one another in the decision process. In case of complex environment factors in the decision unit's environment are large in number (Duncan 1972:315–316).

The state-dynamic dimension indicates the degree to which the factors of the decision unit's environment remain basically the same over time or are in a continual process of change (*Ibid*). It is clear when speaking of the organizational environment in IT sector that there is no simplicity or stability in it. Therefore we

take only *complexity* and *dynamics* of environment into consideration and as Price (1997:375) does, we define the first characteristic as the number of social units (e.g. competitors, regulations for competition, consumers, distributors etc) that regularly have contact with the organization and the second one as the speed and range in which these units are changing. We also consider *uncertainty* as the trait of the environment resulting from the two powerful forces mentioned: complexity and dynamics (Hatch 1997:88).

Bullinger, Lentes and Scholtz (2000) have analyzed general logic of IT sector's development. They start with the beginning of the 20th century when IT companies were mainly domestic producers but they had already opened up for international sales. The main focus was on the increase of productivity, because the marketplace was no longer local. The first development phase indicates the period from the 1960s till the 1970s when the increase in productivity by developing data processing and microprocessors took place. Second phase, the period from the 1970s to the 1990s could be labeled as "functionality". International market triggered improvements in functionality because organizations were moving from domestic production to international production and sales. The development of information and communication (I&C) technologies in products enabled to satisfy the increased need for a company's functionality. Bullinger et al (2000: 1472) underline the fact that the production process acquired a different meaning – complexity and uncertainty. Since the 1990s rapid development of I&C technologies has taken place. Those changes have served as engines of innovation due to which several new phenomena have arisen – virtual enterprises, worldwide networks and multinational mergers. All in all, the way to global networks has been rather long, from the evolution of mankind, but it is no exaggeration to say that the last century has done most on this way and that is due to the development of info technology.

Bullinger and his colleagues (2000) have analyzed global trends in the development of I&C technology and IT sector. Hereby we argue that those global trends are more or less universal, but differences could be brought out in the light of dynamics. For example the development of IT sector in Estonia has been rather different and even intriguing. It has gone through very rapid changes and presents a real success story.

Hence, it is very important to distinguish two different periods in speaking about Estonia: the first period, before the year 1991 when Estonia was part of the USSR, and the second period, after 1991 when Estonia got its independence. In the first period the development of IT sector was practically insignificant, because the sector was sternly restricted and regulated by the state. But still there were forbidden connections with foreign countries that led to several opportunities to develop world-wide technological achievements also in Estonia. Mostly these connections were established between educational institutions here and abroad. To give only some examples - in 1958, the first lecture about programming at University of Tartu took place, but it was delivered under codename of "additional chapters of algebra". In 1959 the mentioned university got its first computer Ural 1

about which the university staff had accidentally heard in a prohibited radio channel Voice of America. The first computer lessons started in 1965 in Nõo High School. It was also the first school of general education in the whole Soviet Union that got the computer Ural 1. In 1967 the Tallinn University of Technology also obtained its first computer Minsk 22. First PC-s were implemented by the University of Tartu in 1982, and in 1990 people in the Institute of Cybernetics first used electronic mails (Eesti Hariduse ja Teaduse … 2006).

Achieving independence for Estonia in 1991, a new era started – there were no longer any restrictions in the sector. The changes in IT sector that started since then were immense. Already in 1991 UUCP connection was established in a regular school. After that the list of events happening in IT sector is very long, starting from 26th of March in 1992 when the first establishment of TCP/IP connection between Estonia and rest of the world took place. In 1995 already one hundred schools were using Internet and 1500 computers were connected to Internet. Estonia has shown initiative by coming out with new info technological solutions (e.g. mobile-parking, ID cards, e-banking, e-government, in 2005 the first e-elections were carried out) and now in 2007 several successful international companies offering innovative IT solutions operate in Estonia (e.g. Skype, Playtech).

The latest survey from TNS Emor (Eestis on … 2006) revealed that 60% (713 000 people) of Estonians are using Internet and 39% (224 000 households) have a computer at home and these are constantly increasing figures. Also the number of IT companies operating in Estonia has increased enormously, from only a small number of companies in 1991 to *ca* 1600 in 2006. Computers and IT solutions have become an integral part of everyday life of many people who use info technological equipment without considering it unusual in any way or being surprised at the pace of development. The present study will focus on the dynamics dimension of environment rather than the complexity matters, because we believe that in this aspect Estonia has gone through an interesting development. But although the progress has been impressive it has been not without backfires. In his report about the innovation system of Estonian IT sector, Hernesniemi (2000) mentioned critically that several innovation programs were affirmed by Estonian innovation policy, "but none of them have actually been applied".

3. Retrospective research of contemporary environmental and cultural change patterns. Case of Ordi

3.1. Methodology and sample

The situation in respect of organizational culture and business environment is unique for each organization, the case study method is appropriate for studying connections between organizational culture dynamics and environmental changes. The method allows going deeper in order to detect the connections and reasons behind the developments.

Research of OC in Ordi took place in February 2005. The study was carried out in four stages. First, the interview method was applied to clarify in which ways the organizational members perceive the stages of organizational culture formation and development process in their organization. Interviews were carried out by a group of students and MA students[2] of the Faculty of Economics and Business Administration, University of Tartu. 19 interview questions investigated OC from three aspects: management of OC, power allocation, and identification with the organization. Interviews with nine employees representing different organizational levels were carried out in Tartu branch of Ordi. Five interviewees had worked with the company 3–12 years and four interviewees had tenure less than three years.

On the second stage of research the mapping of a company's culture took place. The Organizational Values Questionnaire (OVQ) developed by A. Reino was applied to investigate what kind of OC pattern is characteristic of Ordi in 2005. The basic idea of the questionnaire is grounded on the Competing Values Framework (Quinn and Rohrbaugh, 1983), where the framework formed by two strategically important dimensions – *flexibility* vs. *stability* and *internal* vs. *external* focus. While in original method the respondents were given several descriptions of organization and were asked to rate those brief descriptions by dividing 100 point between them, the OVQ consists of 53 statements and the respondents were asked to indicate their attitude to the items on a 10-point scale where 1 means "completely disagree" and 10 means "completely agree". An oblique rotation method of principal axis factoring for items with promax rotation was performed for the OVQ instrument. As a result of factor analysis, four subscales representing four OC types were formed: Human Relations, the Open System, the Rational Goal and the Internal Processes Model[3] (Cronbach Alphas for above-mentioned subscales were respectively 0.84; 0.78; 0.77 and 0.76).

These OC types capture different value hierarchies. The Human Relations type of OC is characterized by flexibility and internal focus and the end values – human resource development – is achieved through high cohesion and morale, trust and belongingness (Quinn, Rohrbaugh 1983, Kalliath, Bluedorn and Gillespie 1999). The organization with Open System type of OC values adaptability, change capacity and orientation to customers (Brown, Dodd 1998). Organizations where this kind of OC is dominating take risks and favor creativity (van Muijen, Koop-man 1994), having as the target to achieve growth, resource acquisition and external support (Quinn, Rohrbaugh 1983), while the Rational Goal type of OC favors planning and goal-setting to achieve productivity and efficiency as ends (*Ibid.*). The last type – the Internal Processes type – aims to achieve stability and control, consolidation and continuity (Lamond 2003) that could be attained by formalized communication and a centralized decision-making process (Howard 1998). Usually the features of all OC types described above are peculiar to an

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2 Andres Teder, Heino Hommik, Kalle Aron, Signe Teder, Teet Vaher, Ülane Vilumets
3 Full procedure see Tolmats, Reino (2006)

organization, but organizations vary along the dominating type of OC and balance between the other types.

61 employees out of 90 participated in the second phase of the study. There were 42 male and 17 female respondents (2 persons did not identify their gender) with average age of 27.6 years and with average tenure of 3 years. The sample covered all hierarchical levels of the organization (19 workers; 24 specialists; 12 middle managers; 1 top manager; 5 respondents did not mark their position).

On the third stage of the research group discussion was carried out where the reflection and interpretation of the study results by CEO and HR manager of Ordi gave useful hints for better understanding the developments in organization. Additionally, content analysis of different printed matters about Ordi and development trends in Estonian IT sector (e.g. published interview with CEO; Ordi's web page; students' study report; periodical) was performed. Lastly, the synthesis of materials and research results were interpreted in the framework of legitimacies of the development of innovative companies which was worked out by Bullinger and his colleagues (2000). Triangulation of qualitative and quantitative research methods enables to synthesize the variety of data from different sources and bind together into the hypothetical model of the impact of dynamic environment on organizations.

3.2. Results of the study

The interviews, analysis of the printed matter and the quantitative research enable to investigate how OC of Ordi has been shaped from 1992 up to the present, and draw hypothetical conclusions how the culture will change in further perspective. It is important to realize that OC is a phenomenon which is based on the perception of organizational members, i.e. how the people belonging to the organization understand the processes going on in that particular organization. Statements about the culture are very often based on comparison with the periods in the organizational past or even on how that particular organization looks like compared to the other organizations in the same business sector. Therefore values through which organizational members report about their culture may have different connotations. For example value "stability" does not necessarily mean that "nothing is changing", but could also be interpreted as "we are not so dynamic anymore".

In our study we also draw parallels between the development stages of OC and the processes that took place in the environment in regard with its complexity and dynamics. In the case of Ordi complexity first of all denotes the unawareness of different effects that may have influenced the company's further success. This follows from the rapid development of IT sector, especially in Estonia where there were no previous sufficient experiences in this field before 1991 when Estonia regained its independence. And this in turn leads to the term "dynamics of environment" – there is no doubt that IT sector is one of the most dynamical sectors of all and in the 1990s the development in Estonian IT sector was even more rapid compared to the rest of the world.

Asking employees to periodize Ordi's history, they defined the period from 1992 to 1997 as Tartu period, which means that the company, settled only in Tartu was rather small and enthusiastic employees worked in the field they enjoyed (Teder, Hommik, Aron et al 2005). Sulev Sisask, the owner and CEO of Ordi, declared in his interview from 2001 that he did not consider himself as a manager up to the year 1997, because the organization was small and managing was not needed. The main task was working out the strategy of the company and "building the foundation for the organization" (Karu 2001:251). Expansion to Tallinn in 1997 and accessing sales of 100 million Estonian crowns was seen as one of the milestones in the history of the company. Interviewees also pointed out that this was the period when formalized routines were worked out and when structural changes were entrained (e.g. middle manager positions were formed). Sisask proclaimed that growth was supposed to occur in a way of natural development without forcing. He considered the role of loyal employees very important in the growth of the company (Karu 2001:254–255).

The beginning of new era could be dated from 2002 when the quality management system of the company was certificated according to ISO 9001:2000. The impact of certification on the organizational culture was rather direct. The employees stressed that subordination became more distinct, job descriptions were worked out (Teder et al 2005). Thus the company became even more formalized and standardized. From the interviews it became clear that while in the early stages of development the growth and expansion were seen as the main target, today the employees perceive that keeping the market share and engaging stability are the main purposes of the organization. At the same time the interviewees admitted the lack of the explanation of the vision of the company – employees do not have so-called "big picture" about the future trends (Ibid, 2005). Consequently, stability has become a central value for Ordi in this time period and stability has been insured by implementing regulations. These trends are partly evoked from the environments on the one hand; on the other, the internal organizational development pushed organization to this status.

The development pattern of OC is presented in Figure 1. As the majority of data analyzed was qualitative, the figure has an illustrative implication to remark the OC development trends for the period 1992–2005. Quantitative data from OC research in 2005 serve as a standard of comparison; other lines in the figure were deduced from the retrospective qualitative research.

Organizational culture of Ordi has followed a rather logical path where growing from a small company to the middle sized organization, the culture desists partly its human relations orientation in favor of regulations, and the rapid growth is replaced with stability endeavor. These are changes which could be described using the theory of organization's life cycles (Greiner 1972, Quinn, Cameron 1983). According to the theory OC undergoes several changes while the organization moves from the first, entrepreneurial phase to the last one – elaboration stage. In the case of Ordi the period from 1992–1997 could be described as an entrepreneurial and collectivity stage. Although the theory handles these two stages as
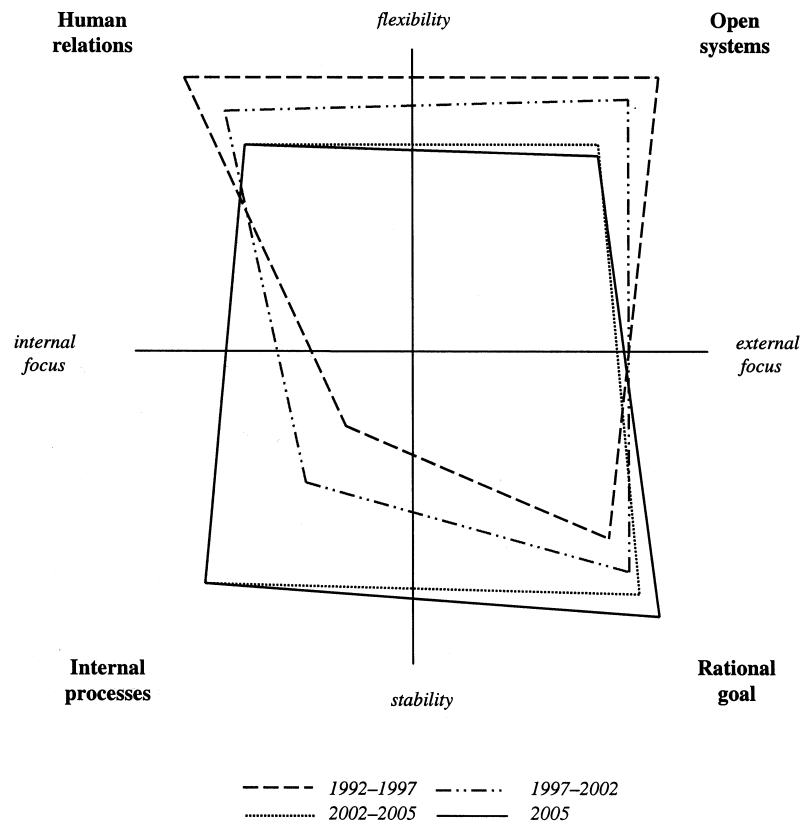
Figure 1. General pattern of Ordi's culture dynamics 1992–2005.

separate, it seems reasonable to take them for one. This was a period where Human Relations and Open System types of OC prevailed. Afterwards the organization moved on to the stage of Formalization (year 2002 as a perceived turning point for employees), where usually Internal Processes and Rational Goal types of OC dominate. According to the theory the next stage in the life cycle would be elaboration stage, where most suitable OC profile would be the one, where the Open Systems type dominates. For Ordi it would mean significant changes to become more open in terms of innovativeness and flexibility.

Changes in organizations do not happen for nothing – there is usually some kind of pressure from inside or from outside of the organization. Again, the environment has to be placed in the forefront. Figure 2 binds together the development phases of IT sector in global arena (boxes with white background) and those in Estonia (grey boxes) discussed before in the present paper. Dotted lines mark some possible developments in the future. Ordi's development is included in the overall Estonian IT sector development line in Figure 2. Analysis is based on the comparison of differences and similarities of Ordi's development and trends in Estonian IT sector and in global arena.
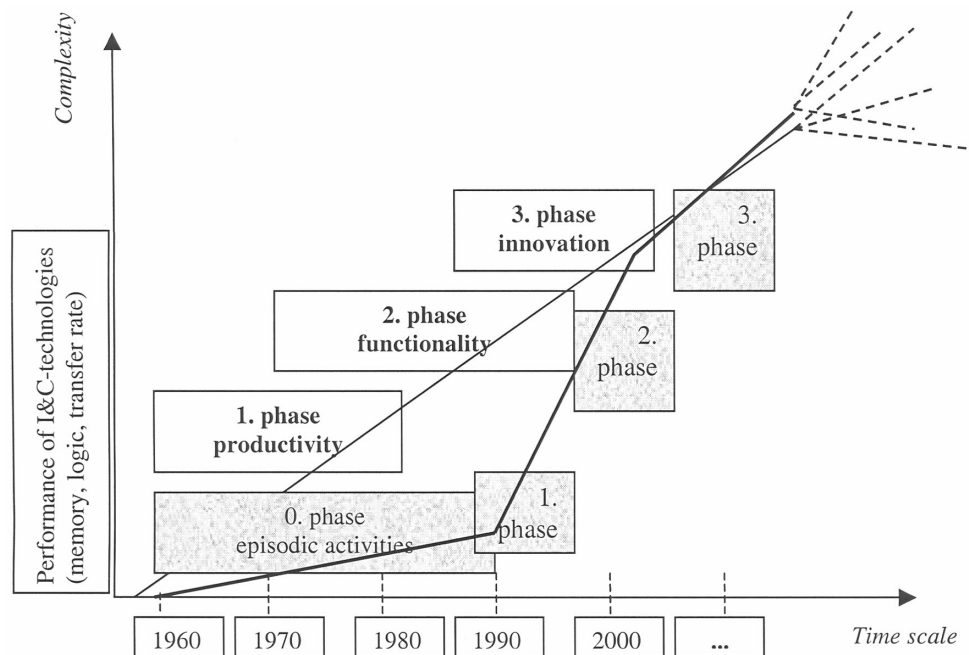
Figure 2. The development of Estonian IT organizations in the context of challenges and chances for innovative companies in a global information society (Source: Bullinger et al 2000, with authors' supplements).

As can be seen in Figure 2 Ordi who develops information and communication technologies, became operative in 1992, which is the end of the second development phase and the beginning of the third phase of global information society. By that time Estonia had been an independent republic for one year and it had started its economic development on totally new principles – the principles of market economy, democracy and freedom. The monetary reform had just been carried out and perspicuous political and economical goals were posed. Thus, Ordi started in a very interesting, but also turbulent time where the future scenarios were unpredictable. Yet there were no important IT developments in Estonia but very many opportunities had emerged.

Developed countries were a step ahead from Estonia and that was the major global factor of environment that influenced Ordi. In general, a company had to strain so as to achieve an advanced level and to have equal opportunities comparing to others. In a situation like that one could assume that the organization would have been very goal-oriented and fast-growing but instead Ordi's purposes were perceived as to "enable the employees to earn money and be engaged in things that they take an interest in, and all that by doing their everyday job" (Teder et al 2005: 9). Probably those goals did not support sustainability of the company, because Estonian economy started to grow rapidly and that called for developing

all three phases – productivity, functionality, and innovation. And that inescapable fact led Ordi to the beginning of the second period – the time of expanding across Estonia.

Ordi's second period coincides with the third phase on the global arena. Although at that time in 1998–1999 Estonia had a major crisis due to the external shocks (financial crisis in Russia) and overheating in Estonian economy, there were no hints given by Ordi's employees that the company had suffered difficult times. One reason here may be the very successful program called *The Tiger Leap* launched in Estonia by the Ministry of Education in 1997–1999. Its main purpose was to provide all educational institutions with info technological resources to bring up a new generation – impulsion of changes (Tiigrihüppe Sihtasutus... 2006). The program attracted international attention and that was an important boost for Estonian IT companies' development. Also in July 1998 Estonian innovation policy affirmed Estonian State Innovation Program (Kalvet et al 2002). All that in turn put Ordi into a position where smooth co-action had to give place to expansion.

The third period involved important upheaval in Ordi's development. The company had to prepare for Estonia joining the European Union in 2004, which meant new conditions and standards equal to other IT companies in EU, and that was done by certificating the quality management system according to ISP 9001:2000. Though in 2001 Ordi expanded to Latvia and Lithuania, broadening the activity internationally was not seen as an end in itself (Teder et al 2005). Ordi's main purpose in this period was to insure its position in Estonian IT market.

For mapping the OC of Ordi in 2005, the employees were asked to fill out the OVQ. The results of analysis showed that the predominant type of organizational culture in Ordi was the Rational Goal type of culture ($m^4 = 8.25$, $SD^5 = 1.15$) followed by the Internal Processes type of culture ($m = 7.51$, $SD = 1.33$). Two other organizational culture types are less characteristic of Ordi. On the basis of the Paired Sample Test the mean estimations given to the Open System type of OC ($m = 6.38$, $SD = 1.71$) and the Human Relations type of OC ($m = 6.64$; $SD = 1.53$) turned out to be coequal. From the analysis one could conclude that the culture type with central value of stability (as an opposite of the flexibility) is predominating in the organization. Employees of Ordi pronounced that the speed of implemented changes in the organization has diminished. The "nucleus" of the company has evolved and those are people whose initiative and suggestions are usually considered and accepted by management while other employees have been left out from the inner circle (Teder et al 2005). Thus today the organization has become more result-oriented and internally structured. Compared to the previous periods Ordi is perceived as less dynamic and the employees do not feel that kind of belongingness as before.

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[4]   Mean value of OC type, the estimations given on 10-point scale
[5]   Standard deviation

4. Discussion

From the view that organizations are not isolated from their environments it follows that changes in external environment have an impact on internal environments. Going even further, one should not restrain the external environment to the local business environment but rather have an approach of environments without borders. What happens in Estonia is not unique but rather the reflection of global trends and patterns. Those external impacts on the one hand, and the inner developments logics on the other, are the factors which determine what happens to the organization as a whole. The article proposed the hypothetical model which brought together the nature of processes taking place in IT sector and the impact of those processes on the organization, mainly on its culture. From the analysis several conclusions could be drawn.

Firstly, that Estonian IT sector's development has generally followed the global pattern but the difference has been in the speed of development. Developmental phases on global level which mark the development of IT sector generally cover the period 1960–2005. Those stages of development were passed through by the Estonian IT companies during the period that is almost three decades shorter (1990s–2005) and today we could argue that in certain aspects Estonian IT sector is even more developed than the average IT sector on global level. Until the point where the line denoting dynamics of IT sector on global level and that of Ordi's as a representative of Estonian IT sector meet, Ordi has had a much steeper line of dynamics. Estonia as a catching-up society has passed through radical changes and we believe that the role of government and its liberal politics has been significant in those developmental trends in IT sector. In other words, the Estonian IT sector achieved the current level three times faster than that in the western countries.

Secondly, from the study it became clear that the development of OC has followed the pattern of life cycle model of an organization's development – OC of Ordi as perceived by its employees has gone through considerable changes – from small enthusiastic team it has become a formalized and result-oriented organization valuing stability. Organizational culture is about coping with problems of external adaptation and internal integration and indeed it is very difficult to argue whether the shifts in culture stem from the environmental changes or rather from inside incentives. Though some authors (e.g. Greiner 1972) argue that organizational development is basically dependent on the decisions made *inside* the organization we still cannot abandon the role of environment in the process. It is a circuit where several bonds (often invisible) can be surmised. For example the management may decide to expand the organization, but usually the roots of that kind of decisions could be found from the external environment.

The third conclusion could be that speed and the nature of development in external environment have left traces on the organization and its culture. Although OC is seen as rather inert as far as changes are concerned, and it occasionally seems to even hinder the change process, some changes in OC itself take place in the course of time, but events in the environment evidently interfere here as well.

In case of Ordi the stages of OC have been much shorter compared to that time scale of culture change proposed in the organization's life-cycle model. One may argue that this reflects general trends in today's business – environment is not (and will never be again) as stable it was 30–40 years ago; but we cannot deny that the processes could be the result of management decisions in Ordi. It is obvious from the present study that the external environment was one which certainly favored the growth and development speed of Ordi. One of the factors which fostered Ordi's growth was the economic growth at the end of the 1990s that led to an overheated economy in Estonia. But even then the programs started by government institutions (Tiger Leap) softened the recessions from the external environment and made the ongoing expansion of the company possible.

Ordi has been in business for almost fifteen years and according to the life-cycle model the company has reached the formalization and control stage in its life cycle. Evidently, Ordi will soon move on to the elaboration stage, where the organization "monitors the external environment in order to renew itself or expand its domain" (Quinn, Cameron 1983:44). Indeed, there are several strategic questions to be answered before.

Questions arise from previous discussion – what has happened and will happen after the point where Ordi's development line and global line cross and what will further changes be in OC of Ordi? What will be the further trends in Estonian IT sector? We believe that there are no clear answers to these questions and assumptions are not easy to make. Probably parallels can be drawn with the situation in Estonian innovation policy as a whole. There have been several warnings in the Estonian press that Estonia has lost the speed in development, especially in IT sector. The further development of IT sector in Estonia is not so prominent anymore and probably development trends will conform to global trends.

Ordi has remained a company operating in the local market and to a lesser extent in the Baltic states. In that kind of situation most important keywords for Ordi are development of technology and competition with other computer producers that operate in the Estonian market. Expanding its market looks quite likely for Ordi in the future which of course is a challenge for the whole company. To meet that challenge Ordi has to come out from the "cage of rules and regulations" and vitalize its innovativeness and flexibility in order to cope in the dynamic environment. First of all there is a need for clear vision for the company which should be shared with employees. Employees must be encouraged to give their best for example by involving them in development teams and establishing goals which involve producing innovative ideas. The will to co-operate is extremely important in modern organizations and especially in organizations which are located in different places, managing teams and interpersonal relationships become crucial.

Besides focusing on the internal matters the company has to analyze the IT sector developments in local and global environment. There is some kind of parallelism in the development of Estonian IT sector and global trends of the

sector and thus, the analysis of the latter may open up important aspects of the future developments for an IT sector organization in Estonia.

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