Formalisation of organisational structure as a subject of path dependency: an example from Central and Eastern Europe

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This study examines the characteristics of organisational structures in Central and Eastern Europe on the example of Estonia. In particular the formalisation level of the structures as a subject of path dependent developments is observed. Quantitative and qualitative research methods are combined for the empirical evidence and data from three different data sources are employed: the European Social Survey, the survey of Estonian managers, and interviews with managers from the Estonian software companies. The authors show that the communist past still affects the creation of organisational life today. The path this past created affects the organisational structures in the present in two ways: firstly, a kind of structural inertia can be observed, where the Soviet style of management with its high formalisation is still around today and limits employees in their freedom to deal with their work. Secondly, an opposite trend can be revealed for the other actors in the same game, the managers, as another kind of path dependency exists – a reactive process where the past has caused a powerful response, forcing the actors to put themselves in contrast to the Soviet management style. We demonstrate that this path dependency can be perceived differently by different actors in an organisation and show that the path dependency is a complex issue with many nuances within it.

Keywords: path dependence, organisational structure, formalisation, Estonia, Central and Eastern European Countries.

Subject classification codes: P2: Socialist Systems and Transition, Economies M5: Personnel Economics
1. Introduction

Quarter of century has passed since the fall of the Berlin wall and the dissolution of the Soviet Union. The rapid processes of transition from communist ideology and a command economy system to democracy and a market economy resulted in a radical change in managerial qualities and methods. In the course of the transformation, the command-style management practice also fell out of favour. Today the process of transition, in the sense of the changeover from one political and economic regime to another, has been completed for quite some time. Nevertheless, the process of shaping society continues and still affects the organisational formation and functioning of organisations today.

This paper studies formalisation of organisational structure in Central and Eastern Europe using the case of the smallest former Soviet Bloc country, Estonia. Thereby the wider context of transitional countries is opened by contrasting certain organisational practices in Central and Eastern European (CEE) and Western European (WE) countries.

The starting point of this study is the question of what determines the characteristics of the structures of Estonian organisations, and it will be answered with the help of the theoretical concept of path dependency. More precisely, we study how formalised the organisational structures are (as this is one of the three basic elements of organisational structure in the seminal approaches) and prove their path dependency. Beside this we also hope to demonstrate that different actors can perceive this path dependency differently and thus we will show how complex the phenomenon of path dependency is. For the empirical evidence we use data from three different data sources and combine them.

This paper is structured as follows: the following section outlines the theoretical background underlying the research, the third section then shows the empirical evidence, and the last section discusses the results.
2. Theoretical frame of the study

2.1. Organisational path dependency

The rationale behind the concept of *path dependency* is that development usually follows a predictable sequence. This idea can be traced back to research by Nelson and Winter (1982), who argued that activities and decisions from the past influence subsequent choices. Later works by many other authors further developed the concept of path dependency (e.g. David 1985; Arthur 1994; North 1990; Pierson 2000; Sydow *et al.* 2009).

Path dependency became a focal idea for evolutionary theories in economics. Dosi and Nelson (1994: 166) emphasise that ‘rational choice’ theory does not explain how the particular local context which frames the choices came to be the point of rest, and they argue that path dependency may open these issues, saying: ‘in all of the models, the particular entities that survive in the long run are influenced by events, to a considerable extent random, that happen early in a model’s run’. This approach explains technological trajectories well and so it is used for this purpose (for example, Dosi and Nelson 2013; Hobday 2003), but it is also applicable for other factors of economic development too.

The importance of considering path dependent developments in studying different phenomena in former Soviet countries becomes clearer through the study of Hedlund (2000), which explores the Russian roots of the failure to live up to the expectations about economic transition. The author argues that the Russian reformers failed to take account of a deeply rooted Russian path dependence. Focusing narrowly on changes in the formal rules they neglected the need for broader institutional change. Blum (2013) comes to a similar conclusion about the relevance of path dependency in a study comparing Eastern Germany’s economic development to that of Western Germany. He shows that the long-term development path of Eastern Germany has not changed since the 1950s and 1960s and concludes that any policy that wants to break this trend has to confront the very stable structural deficiencies of this economic system.
In our study we go a step further in decoding the concept of path dependency in former Soviet countries. The approach to path dependency which we will draw on in our argumentation goes back to David (1985) and Arthur (1994), who studied path dependency in economics. For these authors, path dependency shows a process started by a random decision or event. Through inertia, this process can lock a technology in to a particular path of subsequent development. As such, this path is not necessarily the most advantageous from an aggregate standpoint (Britton 2004, p. 2), and in this case the process exhibits “increasing returns”, where the technology or action mode cannot be displaced once it has been adopted because of the increasing conversion costs.

However, such a perception is often too narrow in the study of organisations and it is important to consider the other possible forms of path dependency, such as reactive processes, where the ‘initial disturbances are crucial not because they generate positive feedback, but because they trigger a powerful response’ (Mahoney 2000, p. 518). In our study we follow Mahoney’s distinction between ‘self-reinforcing sequences’ and ‘reactive sequences’. The first are characterised by processes of reproduction and the second by processes that transform or even reverse early events (Mahoney 2000, p. 526).

To date the starting point of this path, we draw on Sydow et al. (2009), who offer a framework for better explaining path dependency, since the concept of path dependency in the theoretical literature has before now been ‘used mostly as a broad label indicating all kinds of imprinting effects of the past on organisational behaviour’ (Sydow et al. 2009, p. 689). They show different stages in the formation of such a path: the Preformation Phase ‘is characterised by a broad scope of action. The effect of a choice of options cannot be predicted’ (2009, p. 691). This is followed by the Formation Phase, in which ‘a dominant action pattern is likely to emerge, which renders the whole process more and more irreversible. By implication, the range of options narrows, and it becomes progressively difficult to reverse the initial choice or the initial pattern of action—that is, a path is evolving’ (2009, p. 691). Finally, there is the Lock-in Phase, which is ‘characterised
by a further constriction, which eventually leads to a lock in – that is, the dominant decision pattern becomes fixed and gains a deterministic character’ (2009, p. 692). In our study of Estonian businesses, the first phase – the Preformation Phase – starts around 1991, when Estonia gained its independence and theoretically all paths for the development and design of organisations were open. However, the Preformation Phase of course does not stand in a history-free context as ‘history matters in the Preformation Phase too’ (Sydow et al. 2009, p. 692), which in the case of Estonia is its Soviet past. A high level of formalisation in organisations was a characteristic attribute of the whole Soviet regime and also of its organisations. It is therefore a suitable phenomenon for proving the path dependent character of organisational structures in the present.

**2.2. Historical and cultural context as a builder of path dependency in the former Soviet Bloc**

Dynamics in political and social life frame a situation where economic activities are totally under the influence of some significant developments. This perspective was the underlying idea when Alexander Gerschenkron (1962) analysed economic backwardness in various regions, including Soviet Russia. He ends his book with six propositions which reflect how the backward country’s economy has influenced its industrialisation, and he (1962, p. 354) also draws attention to institutional factors.

In a similar vein, Wren (2004) concludes that Taylor’s approach to management was not applicable in Soviet Russia, saying: ‘decisions regarding work standards and output were made on the basis of national priorities as determined by the Communist Party rather than by any notion of a systematically designed production-marketing system’ (2004, p. 297). One rich example is Soviet Russia and the countries which were affected or dominated by this ideology. Gerschenkron (1962) analyses industrial growth in Soviet Russia and describes the basic problems of industrial enterprise in Soviet Russia at the beginning of the 1960s. His (1962) assessment is paradoxical because on the one hand, he argues that industrial managers had plenty of scope to manoeuvre to lengthen or shorten, loosen or tighten lines of command in the organisational structure (1962, p. 279); on the
other hand, the ideological tools of shifting managers from factory to factory, locally maintaining a well-developed system of informers, and increasing control by the local party organs were used to push these managers toward greater obedience and to shorten the tether they were held on or at least to control its length (1962, p. 288). It has been argued that organisational culture in Russia is still influenced by collectivism. Vadi and Vereshagin (2006) have shown that human resources management practices and organisational culture in Russia are influenced by collectivism and these impacts derive from both long distant and recent history. They also mention that in the Soviet Union human resources management practices were militaristic in style. The term ‘kadrovaja rabota’ (operating with cadres) was adopted in the first years of socialism. It was based on instructions from the top and subjective criteria used to have an important role in personnel selection. Given these notions, it is justifiable to say that the Soviet system maintained tight control over employees by setting rules for manpower deployment, training and procedures. Once these have been built in to the practices of organisations, specific features may remain for a long time. For example, Cook et al. (1998) found forty years later that people managing manufacturing industries in the former Soviet Union differ from their counterparts in Britain in many aspects of their personality. They argue that these managers may find it difficult to function effectively as managers in the post-Soviet era and the authors call for an improvement in selection methods to identify the next generation of managers and extensive training and development programmes to enable these managers to cope. From the perspective of organisational structure these functions are known as part of the formalisation.

Festing and Sahakiantas (2013) show that several factors from the macro, organisational and individual levels have contributed to the legacy of communist practices in the compensation systems of post-communist countries, while they also find many factors that have contributed to the dissolution of this path-dependency, like foreign direct investments, international management consulting companies etc. They analyse more advanced countries from CEE, the Czech Republic,
Poland and Hungary. The role of path dependence in management and organisation may be stronger in Russia. Schwartz and McCann (2007) argue that there have been ‘limited changes to management structures and systems of control of the enterprise, and very few changes to work organisation’ in Russia. Libman and Obydenkova (2013) show that Russian regions with high Communist Party membership rates during the Soviet era have higher corruption nowadays. They discuss how former members of the party became transformed into the bureaucratic, political and business elite, which kept close informal ties and established political institutions with ‘lower transparency, a higher level of clientelism and predominance of extractive institutions’.

For a better understanding of the role of culture in path dependent developments for organisational structure, a good approach has been developed by Geert Hofstede, who argues that some elements of formalisation are culturally bounded, like uncertainty avoidance and power distance, and form the framework for setting rules and formalisation in general (Hofstede 2001, p. 166, 375). Seen from Hofstede’s original approach (1980), which incorporates four cultural dimensions, Central and Eastern Europe falls into the category of regions with high uncertainty avoidance, which is the degree to which people in a country feel threatened by uncertain or unknown situations, and prefer structured over unstructured situations. In the organisational context this means that organisations with high uncertainty avoidance tend to use more control practices and have less trust in the ability of their employees to take decisions on their own.

Stewart et al. (1994) and Offermann, but also and Hellmann (1997), show empirically that managers from societies with high uncertainty avoidance tend to be more controlling and less delegating. In these societies, specialisation and task-related expertise are more important in the career management of young managers than are flexibility, career mobility and generalisation. The GLOBE Project also reports leadership and organisational attributes that are culturally contingent (Den Hartog et al. 1999). There are different characteristics and member behaviour in organisations in different countries. All in all, we can argue that a national culture that is strongly uncertainty
avoiding and the Soviet past have contributed to the high level of formalisation in organisational structures in Central and Eastern European countries.

2.3. Formalisation of the organisational structure

Formalisation is, alongside centralisation and complexity, one of three key elements in organisational structure. It shows the extent to which rules and procedures exist and are followed in an organisation (Scott 1981). The number of formal rules, policies and procedures in the organisation indicates its level of formalisation (Andrews and Kacmar 2001). If an organisation is highly formalised then procedures in the organisation are clearly defined, there are lots of rules in the organisation and the jobs are explicitly described.

The level of formalisation in an organisation is generally dependent on the size and sector of the organisation. Kalleberg et al. summarise in their National Organisations Study (1996, pp. 326-329) that a larger organisation size is one factor that increases formalisation, and being a public-sector organisation is another. An increase in the number of departments is hypothesised to result in greater formalisation. However, the level of formalisation could also be a matter of the cultural and historical context in which the organisation acts (Hofstede, 2001), as in a more authoritarian society the organisations also tend towards more formalisation in their working processes.

Some scholars also differentiate between organisational and job formalisation (Hempel et al. 2012; Griffin et al. 2007). Organisational formalisation is the extent to which formal rules and policies regulate behaviour and decision making within the organisation. It provides the basis for interactions between organisational members (Khandawalla 1974; Pugh et al. 1968) and indicates, for example, the extent to which the members of the organisation can influence policy decisions about the activities of the organisation. Job formalisation, on the other hand, focuses on the degree of formalisation of job descriptions or roles within the team, showing how much the management allows the employees to decide how their own daily work is organised.
3. Linking theoretical considerations to empirical evidence

For the empirical evidence in this study we use three different sources showing the level of formalisation of organisational structures, its path dependence and the significance of the views of different actors in this. In the first source – the European Social Survey 2002-2012 – the freedom of employees to handle their tasks was evaluated. The higher this freedom is, the lower the level of formalisation in the organisational structure. The second data set – the Estonian survey of managers ‘Eesti juhtimisvaldkonna uuring 2011’ – showed the level of formalisation in the organisation from the explicitness of organisational procedures. The more explicitly the procedures are described, the higher the level of formalisation. The last data set – interviews with the (top) managers of software companies – shows the overall attitude of top managers toward organisational structure as a leadership instrument.

Kaasa et al. (2013) draw attention to the European Social Survey data set as a solution for overcoming several weaknesses in the earlier data sets used for cross-cultural analysis, saying that ‘it provides unique opportunities for the analysis of differences between regions with nation states, and the data are representative of entire populations’ (2013, p. 137). A good example of this is the study of Mysíková and Večerník (2013) who showed using the data from the European Social Survey 2010 that there is a gap in job satisfaction that favours Western Europe over Central and Eastern Europe. In similar vein by using the first data set we compare Western and Central and Eastern Europe, creating thereby the basis for the deeper understanding of focal country – Estonia.

The second data set originates from an exhaustive study of management practices in almost 200 Estonian companies. As a whole, it gives a good overview of the state of the art of management in Estonian businesses.

The third data set we use consists of 13 interviews conducted with the top managers of Estonian software companies and enables us to examine the characteristics of one industry in detail.

From all three we pick the information that allows us to draw conclusions about the level of
formalisation of organisational structures and its path dependent character.

3.1. *Different paths in Western and Central and Eastern Europe in working arrangements – employees’ perspective*

In this section the authors test whether the developments in working arrangements in Central and Eastern Europe (CEE) have been different from those in Western Europe (WE) using the European Social Survey (ESS) data from 2002-2012. The ESS contains data about perceived working arrangements in each sample country over six survey rounds, highlighting the path from the perspective of the employees of the organisation as one group of internal stakeholders. The ESS is an academically driven pan-European survey measuring attitudes, beliefs and behaviour patterns (see information about the survey at http://www.europeansocialsurvey.org/about/). Population and sample weights are employed in the subsequent analysis to make the surveys representative over countries and over time.

We analyse developments in the formalisation of organisational structure using two survey questions from the ESS: first ‘How much does/did the management at your work allow you to decide how your own daily work is/was organised?’, variable wkdcorga; second ‘How much does/did the management at your work allow you to influence policy decisions about the activities of the organisation?’, variable iorgact. The first round has the second question about the ability to influence the policy of the organisation phrased differently and hence this year, 2002, is left out from the analysis for this variable. Respondents choose one value from the ordered scale from 0 - ‘I have/had no influence’ to 10 -‘I have/had complete control’. All the employed or previously employed individuals are subject to these questions in the questionnaire.

A regression analysis is used to investigate whether respondents’ estimates about working arrangements have changed over time differently in the sample of CEE countries and in the full sample of all the countries investigated. A simple method with interaction terms is used to identify possible differences in developments in CEE and WE.
The following regression is estimated:

\[
\begin{align*}
\text{working\_arrangements}_i & \equiv \alpha + \gamma c_i + \beta \text{CEE}_c + \delta \text{time}_{t} + \epsilon \text{org\_size}_i + \zeta \text{sector}_i + \sum \text{country\_dummies}_c + \text{error}, \\
\end{align*}
\]

where \text{working\_arrangements}_i indicates one of the two analysed variables for formalisation, either the ability to influence the daily work organisation or the ability to influence the policy decisions of the organisation; \( i \) denotes individuals in the sample and \( c \) countries. The variable \( \text{CEE}_c \) notes Central and Eastern European countries and takes the value ‘0’ for WE countries and the value ‘1’ for CEE countries.\(^1\) The notion of Western and Central and Eastern Europe is here used to differentiate between countries without and with a communist political past and does not necessarily correspond to the geographical position of the countries analysed. The third term on the right hand side notes time dummies for each survey round, which capture the sample average development of analysed variables over time. The \( t = 1, \ldots, 6 \) denotes the time of the survey from 2002 to 2012 with a two-year interval, the base year is 2002 and time dummies for all the subsequent years are added. The third term is the interaction term between the CEE dummy and the time dummies, and captures whether the developments in analysed variables are different in the CEE countries to what they are in the WE countries. In addition to these key variables we also control for country specific effects by adding country dummies for all the 33 analysed countries \( (\gamma_c) \), the size of the organisation \( (\text{org\_size}_i) \) where respondent is or was employed and the sector of that organisation \( (\text{sector}_i) \).

The literature review lets us raise and test two research hypotheses: first, CEE countries

\(^1\) Western European (WE) countries in the sample are: Austria, Belgium, Switzerland, Cyprus, Germany, Denmark, Spain, Finland, France, the United Kingdom, Greece, Ireland, Israel, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal and Sweden. Central and Eastern European (CEE) countries in the sample are: Bulgaria, the Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Poland, Romania, Russia, Slovenia, Slovakia and Ukraine.
have on average a higher level of formalisation in their organisational structure (given the scale for how working arrangements variables are measured in the ESS, we would expect difference between CEE and WE to be negative and statistically significant); and second, formalisation of organisational structures in the CEE countries has diminished more quickly than formalisation in the WE countries due to the dissolution of the communist past and convergence with WE (we would expect the coefficients on $\tau_t \times CEE_c$ to be positive and statistically significant). If we can find support for both of the research hypotheses we can claim that there is lengthy path dependence that has kept the organisational structure of Central and Eastern European countries under the influence of the Soviet past for decades and that the convergence process is still going on.

The descriptive statistics of the ESS data is available from authors upon the request. The ability of employees to influence everyday work arrangements or organisation policy is significantly lower in the former Soviet countries than it is in Western Europe. On average, East-West differences in working arrangements have diminished over time; however, there are some countries that have not followed these trends. Our sample country, Estonia, is notable as one of the countries where the catching up in working arrangements with Western Europe has been the fastest. Table 1 presents the estimation results for the ability of employees to influence the daily work organisation or their ability to influence the policy decisions of the organisation. We do observe that the difference in the predicted values of dependent variable for the CEE countries and for the WE countries is negative and the coefficient for Eastern regions of Germany is negative and one out of two cases statistically significant, indicating that the formalisation of the organisation has been on average higher in CEE countries than in WE countries over the timespan analysed. The ability of employees to influence the organisation of their daily work has increased on average in all the sample countries over time, however, the change in the CEE countries has been statistically significantly faster only in 2008 compared to 2002. For the rest of the years the growth rates of the CEE countries do not differ statistically significantly from those of WE. The ability of employees to
influence the policy decisions of the organisation has increased over time more sluggishly and the trend was even negative in the beginning of the sample years. However, for this variable the convergence of CEE countries with WE countries has been strong and statistically significant for most of the sample years. The convergence with the West has been stronger in the ability to influence the policy decisions of the organisation than in the ability to influence the organisation of daily work, whereas in the policy decisions variable the initial difference in formalisation was also relatively larger.

We also observe that the formalisation of the organisation is higher in larger organisations, especially in terms of the ability of employees to influence the policy decisions of organisation; and that the level of formalisation is on average much higher in manufacturing than in other sectors. Interestingly, even public administration organisations are less formalised than manufacturing.

We conduct a number of robustness tests to validate our results. First, we undertake a similar analysis using only the German sample and differentiating between former Communist regions from the East and former West German regions.\(^2\) The results indicate that formalisation levels are still higher in the Eastern regions, while the difference is considerably smaller than in the whole European sample and is statistically significant only for the ability to influence policy decisions. There is no evidence that the dynamics in formalisation of the organisational structure have been different in the Eastern and Western parts of Germany, and the trend has even been towards more formalisation in the East than in the West.

Our next robustness test studies only the sample of young participants in the labour market. If the Central and Eastern European formalisation of organisational structure is still affected by its Communist past, we would observe the same higher formalisation among young labour-market

\(^{2}\) Eastern regions are: Brandenburg, Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt and Thüringen. Western regions are: Schleswig-Holstein, Bremen, Hamburg, Niedersachsen, Nordrhein-Westfalen, Hessen, Rheinland-Pfalz, Baden-Württemberg, Bayern, Saarland and Berlin.
participants too. We conduct the analysis using the subsample of individuals 26 years old or younger, a threshold chosen from the first wave of the ESS in 2002 as it represents people who were aged 15 and entered the labour market in 1991 when most of the countries in Eastern bloc had gained their economic freedom. We observe that the level of formalisation is still higher in the countries with a communist past, while the difference between East and West is smaller for young people. The young people from countries with a communist past perceive formalisation to be decreasing faster than do those in Western European countries.

(Table 1)

These calculations let us conclude that from the perspective of employees there is a large gap between Central and Eastern and Western Europe in the formalisation of organisation structures, proving the path dependent character of the formalisation and highlighting the role of the Soviet past. Given that quarter of century has already passed since the beginning of the transition process, it is an indication of a very strong inertia and the important role of path dependence in the organisation of work. We consider that this conclusion characterizes the overall context when studying particular managerial perspective. Additionally, the catching up with the West has been stronger on average in the ability to influence the policy decisions of the organisation than in the ability to influence the organisation of daily work. Our estimates are robust to a number of sensitivity tests.

3.2. Formalisation level of organisational structures in Estonia – managers’ perspective

The employees’ perception of the level of formalisation of the organisational structure in the previous section showed that the influence of Soviet-style management still continues today through self-reinforcing sequences. However, managers and employees may differ from each other in their opinions about the formalisation of an organisation. Therefore we studied also the perspective of top managers. The data set from which we draw our empirical evidence about this is an applied study conducted in 2011 by Enterprise Estonia called ‘Eesti juhtimisvaldkonna uuring 2011’ (Estonian
The data about formalisation there was gathered from a questionnaire filled out by the top managers of 193 Estonian companies.

The top managers were asked to mark how precisely the evaluation, training and development and recruitment of employees in their organisations are described. The more exactly the processes in an organisation are described, the more formalised the structure of this organisation is. The results are presented in Table 2.

(Table 2)

In contrast to those in the previous subchapter, these results show no clear tendency towards a high level of formalisation in the organisational structure. According to the ESS, the ability of employees to decide about their daily work in 2012 in Estonia was rated at 6 on a scale from 0 to 10. On the same scale their average ability to influence policy decisions was rated 3.5. According to the Estonian survey of managers, employee evaluation is at the medium formalisation level, training and development are below the medium formalisation level and recruitment is significantly below the medium formalisation level. If we summarise these results, there seems to be a contradiction: according to the ESS the formalisation level of the organisations is above the mid-point, according to the Estonian management study it is below the middle.

To support the assumption that there is an inconsistency between the perceptions of different actors in an organisation – employees and managers – about the real level of formalisation in the organisational structure, we examine the opinions of the (top) managers in one particular industry. In 2008-2009 we conducted interviews with the (top) managers of 13 Estonian software companies. The organisations in this sample were mostly successful software companies in Estonia whose net profit in 2006 amounted to 75% of the profit of the whole software sector.

There is no reason to believe that opinions of managers of software companies about the formalisation of their organisations are not representative for our study of path dependence. From the European Social Survey we can observe that employees in the industry of computer
programming, consultancy and other similar activities have more flexibility on average in the organisation of their daily work and more influence on the policy of their organisation, but the differences between countries with and without a communist past are the same for the whole economy and for the IT sector.

These top managers were asked about the organisational structures in their companies – how the organisation functions, to what extent the structure is a leadership instrument for them as managers and to what extent the structure is formalised in these organisations. Table 3 summarises the general tendencies and opinions about the structural aspects in these organisations.

(Table 3)

The interviews show among other things that the organisational structure and its optimisation are not among the priorities for many top managers. Even more, the organisational structure was often seen as merely a formal rudiment, a rather rigid presentation of hierarchical levels which has no great meaning for everyday operations:

‘We assumed that the people have an intrinsic need to achieve something but it did not happen. Now we have partly described our processes’ (Interview, C4)\(^3\)

About half of the respondents were proud of having a very flat organisation with a low level of formalisation. Organisational structure seemed in the majority of cases to be a rather negatively loaded term which indicates ineffectiveness:

‘We have very little organisation. Everyone says that we have no hierarchy. Everything is quite free. We use lean management. This doesn’t always work very well, but this is inevitable. Our mode of operation is a project. We are oriented only towards the task and the outcome’ (Interview, C2).\(^4\)

Larger companies or companies with foreign owners tended to have more formalised structures with clearer task allocation. There was also a difference between the documents and the lived reality of the organisational structure. Although some of the companies had documents where

\(^3\) Approximate translation from Estonian

\(^4\) Approximate translation from Estonian
the organisational structure was drawn up and processes were described, during the interviews it became clear that they were not put into practice.

Almost all stressed that formalisation was not possible in the software industry at this time because of the rapid changes in the environment of these companies. By default little formalisation and a lot of individual freedom was seen as good.

4. Discussion

Exploring the path dependent character and its nuances in the organisational structures in post-communist countries, we estimated the level of formalisation of the organisational structures in Estonia. For this we used different data sets and combined the information we extracted from them. We first looked at the data gathered from the European Social Survey about the level of formalisation in organisations to find out how Central and Eastern European countries compare to Western European countries.

A similarity with other post-Soviet countries is clearly visible. The employees in Central and Eastern European countries have relatively little ability to influence the organisation of their everyday work. This indicates a rather highly formalised organisational structure and work process. In this context there is a large gap between Central and Eastern and Western Europe in the formalisation of organisational structures. Additionally, the catching up with the West has been stronger in the ability to influence the policy decisions of the organisation than in the ability to influence the organisation of daily work. This lets us conclude that there should be an ‘east-specific’ path dependent development affecting the formation of organisational structures today.

The connecting link between different Central and Eastern European countries is their Soviet or communist past with its command economy, where organisations were highly centralised and highly formalised. Cultural dimensions, created by Hofstede (1980) help us to explain this finding. According to Hofstede, Central and Eastern European countries fall into the category of states with
high uncertainty avoidance and power distance characterised by more control practices and less
trust in the ability of employees to take decisions on their own. We could observe a stability of
structural characteristics stemming from the Soviet past. This continues to influence the
management reality in the present.

To test these results we used a second data set of data gathered from top managers of
companies in one CEE country - Estonia. We took the responses to the question about the level of
formalisation of recruitment, training and development, and employee evaluation processes and
evaluated them. The results do not show a clearly high level of formalisation in these organisations.
This level lies somewhere in the middle of the range, showing that the processes are broadly
described or partially not described.

Since the first data set reflects the opinion of the employees and the second data set the
views of managers about the organisational structure, the different perceptions of different
stakeholders can be relevant in explaining the difference between these outcomes. To support this,
we used a third data set of interviews with the top managers of software companies. The analysis of
these interviews shows that the organisations tried to show themselves as being flat entities with a
high level of freedom for the individuals to make the best of their work. An opposite development
to the structural inertia mentioned above could be observed if we look at the top managers’ opinion
about the organisational structure. The managers do not want to be related to the management style
prevalent during the time of command economies, and moreover they want to present themselves as
managers with a ‘cool’ management style.

This variance in the results indicates that the path dependency in an organisation can also be
dependent on the particular actor or stakeholder. Furthermore, these different actors can differently
influence the development of the path in this organisation.

Our conclusions are related to two themes: first, the level of formalisation in organisations in
former communist countries is still higher than it is in Western Europe; second, this is due to path
dependent developments in these countries. Looking at the level of formalisation in companies in
one CEE country – Estonia - today we see that this is influenced by two types of path dependency.
On the one hand, a self-reinforcing process, carrying on the quite high formalisation level of the
organisations, and at the same time a strong reaction to this past and a desire to oppose this former
practice at any price, even if it is not always the best way. The fact that the employees perceive the
formalisation level of the organisations differently from the top managers – they find the
organisations more formalised than the managers do – shows that the path dependent developments
are also a matter of the view and perception of different actors of an organisation. This aspect has
not previously been thoroughly studied in the context of organisational path dependency and poses
new questions that are certainly worth studying more closely also in other CEE countries.
References


Journal of Evolutionary Economics, 4, 153-172.


Table 1. Developments in working arrangements according to the European Social Survey, 2002-2012.

Dependent variable measured on scale from 0 - ‘I have/had no influence’ to 10 - ‘I have/had complete control’:

<table>
<thead>
<tr>
<th>Sample</th>
<th>All</th>
<th>Germany a)</th>
<th>Young b)</th>
<th>All</th>
<th>Germany a)</th>
<th>Young b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted value for CEE minus predicted value for WE or Eastern region dummy for Germany</td>
<td>4.905-6.517=- 1.612</td>
<td>6.052-6.523=- 0.471</td>
<td>4.560-5.219=- 0.659</td>
<td>2.953-4.549=-1.596</td>
<td>3.109-3.804=-0.695</td>
<td>2.530-3.175=-0.645</td>
</tr>
<tr>
<td>Eastern region dummy for Germany</td>
<td>-0.260</td>
<td>-0.400***</td>
<td>-0.260</td>
<td>-0.400***</td>
<td>-0.260</td>
<td>-0.400***</td>
</tr>
<tr>
<td>Year 2004 (base 2002)</td>
<td>0.083</td>
<td>0.356**</td>
<td>-0.234</td>
<td>0.083</td>
<td>0.356**</td>
<td>-0.234</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.141)</td>
<td>(0.147)</td>
<td>(0.054)</td>
<td>(0.141)</td>
<td>(0.147)</td>
</tr>
<tr>
<td>Year 2006 (base 2002)</td>
<td>0.094*</td>
<td>0.201</td>
<td>-0.228</td>
<td>-0.331***</td>
<td>0.037</td>
<td>-0.329***</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.138)</td>
<td>(0.149)</td>
<td>(0.046)</td>
<td>(0.119)</td>
<td>(0.119)</td>
</tr>
<tr>
<td>Year 2008 (base 2002)</td>
<td>0.348***</td>
<td>0.820***</td>
<td>-0.038</td>
<td>-0.060</td>
<td>0.545***</td>
<td>-0.169</td>
</tr>
<tr>
<td></td>
<td>(0.053)</td>
<td>(0.138)</td>
<td>(0.148)</td>
<td>(0.045)</td>
<td>(0.123)</td>
<td>(0.118)</td>
</tr>
<tr>
<td>Year 2010 (base 2002)</td>
<td>0.380***</td>
<td>0.954***</td>
<td>0.128</td>
<td>-0.001</td>
<td>0.546***</td>
<td>0.052</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.138)</td>
<td>(0.150)</td>
<td>(0.047)</td>
<td>(0.123)</td>
<td>(0.125)</td>
</tr>
<tr>
<td>Year 2012 (base 2002)</td>
<td>0.673***</td>
<td>1.340***</td>
<td>0.483***</td>
<td>0.505***</td>
<td>1.059***</td>
<td>0.464***</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.134)</td>
<td>(0.150)</td>
<td>(0.049)</td>
<td>(0.120)</td>
<td>(0.131)</td>
</tr>
<tr>
<td>Establishment size2 (1 = 10-24 employees, 0 = otherwise)</td>
<td>-1.089***</td>
<td>-1.043***</td>
<td>-0.635***</td>
<td>-1.686***</td>
<td>-2.001***</td>
<td>-0.944***</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>(0.038)</td>
<td>(0.091)</td>
<td>(0.101)</td>
<td>(0.040)</td>
<td>(0.104)</td>
<td>(0.100)</td>
</tr>
<tr>
<td>Establishment size3 (1 = 25-99 employees, 0 = otherwise)</td>
<td>-0.988***</td>
<td>-0.839***</td>
<td>-0.503***</td>
<td>-1.747***</td>
<td>-2.049***</td>
<td>-1.129***</td>
</tr>
<tr>
<td></td>
<td>(0.036)</td>
<td>(0.085)</td>
<td>(0.103)</td>
<td>(0.038)</td>
<td>(0.098)</td>
<td>(0.098)</td>
</tr>
<tr>
<td>Establishment size4 (1 = 100-499 employees, 0 = otherwise)</td>
<td>-1.087***</td>
<td>-0.788***</td>
<td>-0.650***</td>
<td>-1.978***</td>
<td>-2.271***</td>
<td>-1.164***</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.089)</td>
<td>(0.118)</td>
<td>(0.041)</td>
<td>(0.102)</td>
<td>(0.113)</td>
</tr>
<tr>
<td>Establishment size5 (1 = 500 or more employees, 0 = otherwise)</td>
<td>-0.797***</td>
<td>-0.297***</td>
<td>-0.206</td>
<td>-1.950***</td>
<td>-2.048***</td>
<td>-1.137***</td>
</tr>
<tr>
<td></td>
<td>(0.043)</td>
<td>(0.094)</td>
<td>(0.147)</td>
<td>(0.044)</td>
<td>(0.110)</td>
<td>(0.133)</td>
</tr>
<tr>
<td>Agriculture (base industry and construction)</td>
<td>0.264***</td>
<td>0.285</td>
<td>-0.238</td>
<td>0.772***</td>
<td>0.598***</td>
<td>-0.163</td>
</tr>
<tr>
<td></td>
<td>(0.066)</td>
<td>(0.189)</td>
<td>(0.249)</td>
<td>(0.063)</td>
<td>(0.206)</td>
<td>(0.194)</td>
</tr>
<tr>
<td>Services (base industry and construction)</td>
<td>0.602*** (0.030)</td>
<td>0.578*** (0.068)</td>
<td>0.617*** (0.087)</td>
<td>0.376*** (0.030)</td>
<td>0.273*** (0.074)</td>
<td>0.315*** (0.081)</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Public administration, defence (base industry and construction)</td>
<td>0.937*** (0.051)</td>
<td>1.232*** (0.112)</td>
<td>0.761*** (0.218)</td>
<td>0.560*** (0.056)</td>
<td>0.539*** (0.136)</td>
<td>0.232 (0.187)</td>
</tr>
<tr>
<td>Constant</td>
<td>6.268*** (0.068)</td>
<td>5.947*** (0.136)</td>
<td>5.127*** (0.181)</td>
<td>4.875*** (0.066)</td>
<td>4.617*** (0.122)</td>
<td>3.292*** (0.151)</td>
</tr>
<tr>
<td>Country dummies</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.095</td>
<td>0.043</td>
<td>0.042</td>
<td>0.108</td>
<td>0.085</td>
<td>0.058</td>
</tr>
<tr>
<td># of obs.</td>
<td>222264</td>
<td>13965</td>
<td>26694</td>
<td>201432</td>
<td>12690</td>
<td>23691</td>
</tr>
</tbody>
</table>

Notes: 

a) Replicates the analysis for the German sample and compares Eastern Germany with the Western part. 

b) Young population is defined as respondents who were younger than 15 in 1991 when most of the Soviet bloc countries gained their economic freedom and started the switch to a market economy, i.e. these individuals were not part of the labour force during the period of the planned economy. They were aged 26 in 2002 when the first ESS survey was conducted. This regression uses individuals who are 26 or younger from all the survey rounds to prevent the catching up effect appearing due to sample ageing.

Italy and Luxembourg are not included in the analysis of the ability to influence organisation culture. Robust standard errors are given in parentheses. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels of significance respectively.

Source: Authors’ calculations from the European Social Survey data for rounds one to six.
Table 2: How exactly are the processes of employee evaluation, training and development and recruitment described in respondent organisations? (N=193; %).

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Training</th>
<th>Recruiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency, in %</td>
<td>Frequency, in %</td>
<td>Frequency, in %</td>
</tr>
<tr>
<td>Not described</td>
<td>66</td>
<td>35.11</td>
</tr>
<tr>
<td>Broadly described</td>
<td>57</td>
<td>30.32</td>
</tr>
<tr>
<td>Very exactly described</td>
<td>65</td>
<td>34.57</td>
</tr>
</tbody>
</table>

Source: Estonian survey of managers 2011 and authors’ calculations.
Table 3. General characteristics of organisational structures and opinions of the managers about the structure in the respondent organisations.

<table>
<thead>
<tr>
<th>Company</th>
<th>Tendencies concerning structure and formalisation according to the top manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>There is currently (2008) even too much individual freedom of employees. The top manager will again strive toward more standardisation and control in the following years.</td>
</tr>
<tr>
<td>C2</td>
<td>Very little organisation, low hierarchy and little formalisation.</td>
</tr>
<tr>
<td>C3</td>
<td>The company uses the Scrum method as a framework for management of software projects. It uses self-organising teams, co-location of all team members and verbal communication among all team members and disciplines in the project. Little formalisation and a lot of direct communication.</td>
</tr>
<tr>
<td>C4</td>
<td>In the early days of the organisation they avoided dealing with the organisational structure as they considered it unnecessary. Now internal processes have been developed.</td>
</tr>
<tr>
<td>C5</td>
<td>The clients expect a great deal of flexibility, but the top manager sees the need for more standardisation. The challenge is to find the balance between them.</td>
</tr>
<tr>
<td>C6</td>
<td>Low hierarchy, a lot of cooperation.</td>
</tr>
<tr>
<td>C7</td>
<td>Small organisation, a lot of flexibility, very little formalisation.</td>
</tr>
<tr>
<td>C8</td>
<td>Change their structure and processes very often, every month. They think that their success is based on these quick changes. Planning the work is not complicated because of the complex product or the size of the company but because the online casino industry is very undeveloped and the clients are very changeable, so it is very difficult to anticipate their needs.</td>
</tr>
<tr>
<td>C9</td>
<td>They have no ‘clear’ jobs. The overall job-management is team-oriented, where the fit of characters between employees is also important since the company is not very big, so every good employee covers a specialised area.</td>
</tr>
<tr>
<td>C10</td>
<td>The attempt to draw a structure has been very short-term. They are in constant movement and development. Tasks move between people quite flexibly. The important thing is that things are getting done. They have decided that they will formalise a certain process if</td>
</tr>
</tbody>
</table>
they realise that they cannot move forward otherwise.

C11 As they are quite a big organisation, the roles are clear and they have a quite clear functional structure. They have been quite hierarchical, but want to move toward more individual freedom for employees in performing their tasks.

C12 The roles and functions are quite clear, since they are given by the foreign parent company.

C13 Quite hierarchical, as they are quite a big organisation. Processes are described. Nevertheless they stress the importance of individual freedom for the employees in their tasks.