



Munich Personal RePEc Archive

# **New Public Management: opportunity for the Centre, thread for the Periphery**

Miklós Rosta

Corvinus University of Budapest

2013

Online at <https://mpa.ub.uni-muenchen.de/68474/>

MPRA Paper No. 68474, posted 21. December 2015 15:08 UTC

# **New Public Management: opportunity for the Centre, thread for the Periphery**

Miklós Rosta  
Corvinus University of Budapest<sup>1</sup>

Please cite this paper:

Rosta, M. [2013]: New Public Management: opportunity for the Centre, thread for the Periphery. In. Maár, J. et. al. (eds.): *Le clivage centre/périphérie dans une approche interdisciplinaire. Cahiers de la Nouvelle Europe 18/2013, Série publiée par le Centre Interuniversitaire d'Études Hongroises et Finlandaises, Université Sorbonne Nouvelle - Paris 3, chez l'Harmattan, Paris, pp. 401-427.*

## Abstract

In this current study I'm offering a recommendation for the development of a model that could provide us with an answer to the following question: which factors influence the successful introduction of the reforms related to the New Public Management (NPM) movement? The question is relevant, since the East-Central European countries have just embarked on transforming their public administrations according to the NPM during the past years.

Keywords: New public management, Hungary

## **1. Introduction**

At the dawn of the 21<sup>st</sup> century the Hungarian public is disappointed and pessimistic about its future, despite the fact that the country as a member of the European Union and NATO has unquestionably become part of the Euro-Atlantic region.<sup>2</sup> The operational role of the state that Hungarians consider so vital in shaping their lives is perceived as unsuccessful<sup>3</sup>, because in their opinion it does not contribute sufficiently to their welfare. Not only the mood of the population, but also international surveys indicate that in Hungary public administration and

---

<sup>1</sup> The preparation of this study was supported by the TÁMOP 4.2.1. B 09/1/KMR-2010.0005 framework-contract. This chapter is prepared for the volume of the conference series called "Western-Eastern Europe: Centre-Periphery Dynamics". The author thanks Prof. Dr. András Blahó, Prof. Dr. Marie Claude Esposito, Prof. Dr. Balázs Hámori, Prof. Dr. Katalin Szabó, Dr. László Tóth and Júlia Koltai for their helpful suggestions and comments on the draft of the paper.

<sup>2</sup> According to the Eurobarometer survey of fall, 2009, 58% of the Hungarian public is dissatisfied with their lives, the picture is primarily unfavourable in the case of the 40-54 age group: 7 out of every 10 people are dissatisfied with their lives. In regards to their future prospects, 14% of Hungarians are optimistic while the decisive majority is pessimistic about their future. (EC 2009:2-5)

<sup>3</sup> We can learn more about the great magnitude - even in international comparison - of the expectations set towards the state in the survey of Tárki, 2007. See: (Medgyesi – Tóth et al. 2007).

public services work with low efficiency, with questionable productivity and inequitably for the large segments of society (Worldbank 2009); (Tóth 2009). Based on these perceptions it is not accidental that in the past twenty years the comprehensive reform of the public sector have received a high priority whatever government has been in charge and will be probably the case in the future as well.<sup>4</sup>

Public sector reforms root even further back in time in the developed Western democracies than in Hungary, as it has been continuously on the agenda for the past 30 years. Referring to the experiences accumulated in old European Union member states and in Anglo-Saxon countries is an obvious idea when considering the modernizing efforts of the Hungarian State. The reforms concerning the public sector that were realized in the West not only mean system-wide, structural changes, but during these reforms emphasis was put on the transformation of the management and managing principles of the public sphere. New Public Management (NPM) has played a decisive role in that after the millennium and we can consider the performance of the Anglo-Saxon public sector as a leading example.<sup>5</sup> The NPM movement has had a radical effect on the productivity and efficiency of the public sector in the United Kingdom, in New Zealand, in the United States and in Australia. (Barzelay 2001) As a result of the successes, NPM is almost a mandatory element of the governmental reform efforts, so it is not accidental that the adaptation of the NPM techniques and the learning process that go with them is financially supported by the European Union in the new member states as well. Consequently, even in Hungary significant amounts are at hand for the realization of the state reform, to which the governmental, public administration organizations can gain access mainly through the tenders run by the State Reform Operational Program.<sup>6</sup>

However, the effective introduction of the NPM reforms is not an easy task. The scientific community is zealously analyzing the experiences of the developing/less developed countries, including Central Eastern European countries. The story they tell are full of failures, and ineffective reforms or reforms with negative effects (Lodge – Gill 2011), (Meyer-Sahling 2009), (Bouckaert et. al. 2009), (Marobela 2008), (Beblavy 2002). According to our assumption, NPM is not an everywhere applicable, globally adaptable integrated tool set; it is

---

<sup>4</sup> In 2009, under the SIGMA program the OECD and the EU published an interesting study about the public sector reforms in Central and Eastern Europe. Data concerning Hungary are especially disappointing. (Meyer-Sahling 2009).

<sup>5</sup> The NPM movement has received numerous criticisms during the past decades, and as a result of the economic crisis reverse processes opposing to the mentality of the movement had taken place in the public sectors of the developed countries. We cannot cite unequivocally the New Zealand model anymore either. (Duncan – Chapman 2010).

<sup>6</sup> The state reform programs supported by the previous government are categorized by the OECD under the NPM movement. See: (Meyer-Sahling 2009:17)

rather more similar to an approach and a value system, to which numerous management instruments can be fitted. *According to our hypothesis the introduction of management methods belonging to this approach can only be effective, if these instruments fit the informal and formal institutional system followed and applied by the society of the given country.* The institutional fit is necessary, but not a sufficient condition of the successful introduction of a given NPM technique. The talent or inadequacy of the government that is carrying out the implementation, and the other external environmental factors that are prevailing in a given place and at a given time can fundamentally influence the success of the implementation. In the current study we exclusively focus on the institutional factors. The reason behind is on the one hand that the institutional fit according to our hypothesis determines which reforms are worth being implemented in a given institutional environment. On the other hand, a given society's institutional system shows strong stability in the short- and in the mid-run, so that it should be considered as a basic condition, whose knowledge has a fundamental importance for decision makers. The objective of our study is to scientifically analyze and answer to the following questions:

- *Do informal and formal institutions influence, and if yes, then how and to what extent, the opportunities for the successful implementation of the management techniques being introduced under the rubric of the NPM movement?*
- *What kind of institutional framework, in other words informal and formal institutional constellation, is necessary in a given country for successfully implementing a reform belonging to the NPM movement?*
- *Can a successfully applied NPM reform from a given institutional environment be successfully replicated in another, different institutional environment?*

Besides these questions, the author of the study wishes to answer the following one too, if the above described hypothesis is confirmed:

- *Can the reforms belonging to the NPM movement be successfully introduced and sustained in the long-run taking into account the cluster of institutions characteristic of Hungary?*<sup>7</sup>

---

<sup>7</sup> The notion of the “cluster of institutions” is not used uniformly by the various authors. See: Gottlieb (1953) ties the notion to economic systems. Acemoglu – Johnson – Robinson (2002) in their paper primarily associates the notion with property rights. In the current study, under the notion of the cluster of institutions we think of the informal institutions (norms, traditions, habits, the national culture as understood by Hofstede) embedded in the core texture of society and the formal institutions (legal system, as the constitution and laws), which with their stability and strong social acceptance provide the efficiency of the social, economic and political process for the long run.

## 2. Methodology

Following the introduction of the hypotheses, the applied model is presented in this chapter. The model aims to answer the research questions, and to confirm or to reject the above mentioned hypotheses. However, before the presentation of the structure of our model in details, we wish to clarify the notion of the “model” in social sciences.

There are numerous definitions for the word “model” in the literature. (Hofstede 1981:16) As we see, the development of a scientific model is one of the decisive phases of the theory building process, when we attempt to analyze a social scientific phenomenon that has “relatively stable characteristics” (Leontief 1986:4, in: Hy - Wollscheid 2008:788) being aware of the number of factors influencing the given phenomenon. We only concentrate on those that we consider the most important ones. An important characteristic of scientific model building is that it is based on the theories accepted by the scientific community and it can be tested empirically. The result of the test is accessible and reproducible by anyone. Thus, in this way models contribute to the development of science: by building on the theories accepted in the given time period, by either refuting or expanding them, they lead to new theories.

When developing our model we considered the above described principles. Thus we set out from the theories of the new institutional school, and we only included in our analysis those explanatory variables responsible for the success of the reforms belonging to the NPM movement, which we considered as the most important ones. We quantified with the aid of proxy variables the given blocks of the model, in other words the informal and formal institutions. Following that by running the model with the help of statistical methods we tested our hypotheses.

The starting point of the development of our model was Williamson (2000). In his seminal works he defined the possible time intervals of each institutional level, establishes that informal institutions in the long-run ( $10^2$  and  $10^3$  years), formal institution in the mid-run (10 and  $10^2$  years) are unchangeable, while the factors linked to the government can be changed even in the short-run (1 and 10 years). However, when collecting the data for the model, we did not take into account the Williamsonian time intervals assigned to each level. According to Williamson’s model in case of informal and formal institutions it would have been enough to gather data from only one time period, from the 1980’s. However, we did not follow that, because Inglehart – Baker’s [2000] research unequivocally highlighted that the proxy variable used by us change even in the shorter-run. At the same time Inglehart – Baker ([2000], p. 49.) point out that this does not contradict Williamson’s theory, since the changes in the data of the

World Value Survey (WVS) and the European Value Survey (EVS) do not affect the core of culture. By assuming the changes of descriptive, independent variables, we do not make a mistake at all, at worst we carry out unnecessary work, since we can guarantee that the cause (independent variables) in time precede the effect (dependent variable). Data was chosen, following the logic of the model, so it always contains information from the preceding years of the reforms. Thus, in line with the implementation of the reforms in the case of some countries we used data from the 1980s,<sup>8</sup> in the case of certain countries we used data from the 1990s,<sup>9</sup> while in the case of the Central and Eastern European countries<sup>10</sup> we used data from the 2000s.

---

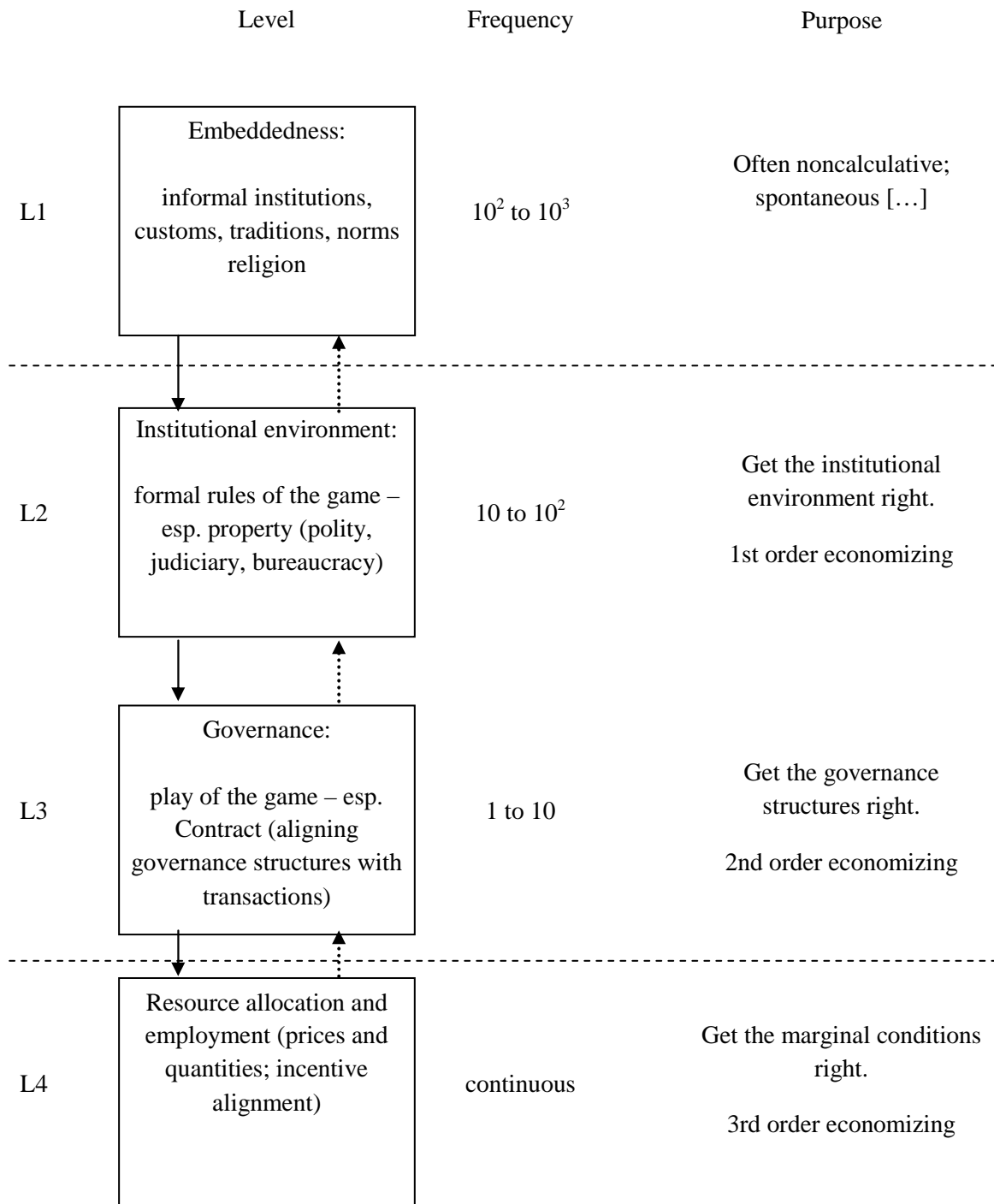
<sup>8</sup> This group includes the United States, Australia, United Kingdom, Netherlands, Canada and New Zealand.

<sup>9</sup> Those countries, which carried out the reforms mostly during the 1990s: Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Germany, Norway, Italy, Portugal, Spain, Switzerland and Sweden.

<sup>10</sup> The following Central and Eastern European countries were included in the analysis: Bulgaria, Czech Republic, Estonia, Croatia, Poland, Latvia, Lithuania, Hungary, Slovakia, Slovenia and Romania.

Figure 1.

The Economics of Institutions



L 1: social theory

L3: transaction cost economics

L 2: economics of property rights / positive

L 4: neoclassical economics / agency theory

Source: Williamson (2000:597)

Based on Figure 1, Williamson’s model is briefly introduced. The first level of the model contains those factors, which – according to our hypothesis – decisively influence the

successful implementation of NPM reforms. These factors have often been considered even by the new institutional economists as given. According to Williamson (2000:596), these include the rules that are followed even unconsciously by the members of society. North (1991:97) called this block informal institutions, and he classified social norms, traditions and habits under this group. In this block of our model, where we apply the notion of culture in Hofstede's sense, since as Hofstede and Hofstede (2005:36) writes:

“The culture practically consists of the unwritten rules of the social game.”

The second level contains those formal systems of rules that North (1984) calls formal institutions, and which include the system of property rights, the constitution and laws. These are the formal rules of the game, which obtain their form and become accountable in the social space created by informal institutions.

The strength of the regulating power of formal institutions varies across cultures; in certain societies it is stronger, while in others it is weaker. The contribution of the formal institutions to the regulation of the social processes (as formal rules of the game) fundamentally depends on informal institutions. Concerning these interrelations and mechanisms there still exist numerous open questions, however the historical determination of these processes is clear. (Greif – Tabellini, 2010), (Greif, 2006) The changing of the formal rules of the game is also a slow process, which take place according to Williamson (2000:598) primarily through the influence of external factors, so as a result of civil wars, economic crises, foreign occupation, collapse of political systems.

For the third and fourth factors, namely the changes in the government and in resource allocations, we can bring up examples from our lives as well. These levels usually pertain to the current workings of the system within the framework defined by the rules of the game established by the first and second levels. While the first two levels regulate *what* the social actors can do, on these levels the emphasis is placed on the question of *how*.

The first block of our model includes the notion of national culture as well. According to Hofstede and Hofstede (2005:6-9) culture is built up like an onion. In its core, we can find those social values that are extremely resistant; they rarely change over time and at a given moment they can be considered as unchangeable. Whereas the outer layers of the onion consist of the rituals, heroes, symbols – that are jointly called “practices” by Hofstede – change more easily and faster during the course of time. When combining Hofstede – Hofstede's (2005) notion of culture and Williamson's (2000) institutional economics we must



keep in mind that the first level that is called by Williamson “embeddedness” basically corresponds to the inner core of Hofstede’s cultural onion, namely the values.

In the next section the model by which we wish to analyze the likelihood of the successful implementation of the NPM reforms is introduced. The model is quite simple, with a static structure, and it contains all together four explanatory and one outcome blocks. In Figure 2. the interaction between the various blocks are not indicated separately in order to simplify the introduction of the model, since the main direction of causality according to our hypothesis is clearly heading from block 1. through blocks 2., 3, and 4. to the outcome variable. All of this, however, does not mean that during the statistical analysis the interactions do not come to light, however we find it sufficient to call attention to the main cause and effect interrelation, when illustrating the model.<sup>11</sup>

During the analysis the data of 31 countries was processed. Beside the 27 countries<sup>12</sup> of Europe we included in the analysis the United States, Australia, Canada and New Zealand. The database of the European countries was complemented with the Anglo-Saxon countries, because the NPM reform movement had developed the earliest and transformed the public sphere at the most depth and width in these countries. (Barzelay 2001)

During the description of the model each of its blocks are depicted. Following the introduction of the independent variables, the measurements of the success of the NPM reforms are reviewed. Capturing the notion of success is key to the working of the model, so our recommended technique is described in more details. The operationalization of success is necessary when we wish to determine the likelihood of a successful implementation of an NPM reform.

We will not deal in details with all the blocks of our model, since for answering our research question it is sufficient to examine and to empirically test only the first two blocks and the success of the NPM reforms. The reason behind this is that primarily we are interested in the “what” question, in other words under what framework of conditions it is worth to set out to implement an NPM reform. According to our hypothesis there will be a strong correlation between the first two blocks of the model (informal and formal institutions) and the successful implementation of the reforms belonging to the NPM movement. The analysis does not cover the examination of all necessary conditions (3. and 4. blocks). Therefore, in the

---

<sup>11</sup> During the development of the model I was inspired by Kornai’s (1992: 360-379) explanatory theory of the workings of socialism and the model related to that.

<sup>12</sup> The list of the European countries does not match the member countries of the European Union. The countries included in the analysis: Austria, Belgium, Bulgaria, Czech Republic, Denmark, United Kingdom, Estonia, Finland, France, Greece, Holland, Croatia, Ireland, Poland, Latvia, Lithuania, Hungary, Germany, Norway, Italy, Portugal, Romania, Spain, Switzerland, Sweden, Slovakia, Slovenia.

case of those countries where by our analyses we can state that their reform attempt was futile, we cannot decide whether it was unsuccessful, because the approach and set of instruments of the NPM movement did not fit the institutional system of the country, or because the decision makers of the given time period did not possess the appropriate competence and skills for the successful implementation of an NPM reform or because the interrelations between the NPM reforms being introduced impeded the successful reforms.<sup>13</sup> Therefore, based on the current study an answer will be given to the following question: the realized forms of the NPM reforms are compatible with the institutional system of which countries, and with which they are not. The exact reasons behind the futility of a reform belonging to the NPM movement can only be uncovered by the analysis of the third block (governmental competences and skills) and the fourth block (the interrelations between the simultaneously introduced NPM reforms). This analysis includes the examination of the political, economic and other social processes at a given time and space, as well as the organizational culture of a given country's public sector.<sup>14</sup>

However, beside the above limitations, based on our analysis even in the case of the unsuccessful countries we will be able to decide with a great probability – but unequivocally – whether a given country was incapable to implement the reforms belonging to the NPM movement, because of its institutional system or other factors, such as the lack of government abilities that caused the failure. If a country's institutional system is the same, or very similar, to the ones of the successful countries and yet its attempt to implement the NPM reforms was futile, then we can assume that its failure was not caused by the relationship to the institutional factors, rather it is explained by other causes, for instance the government's abilities and the organizational culture dominant in the public sector.

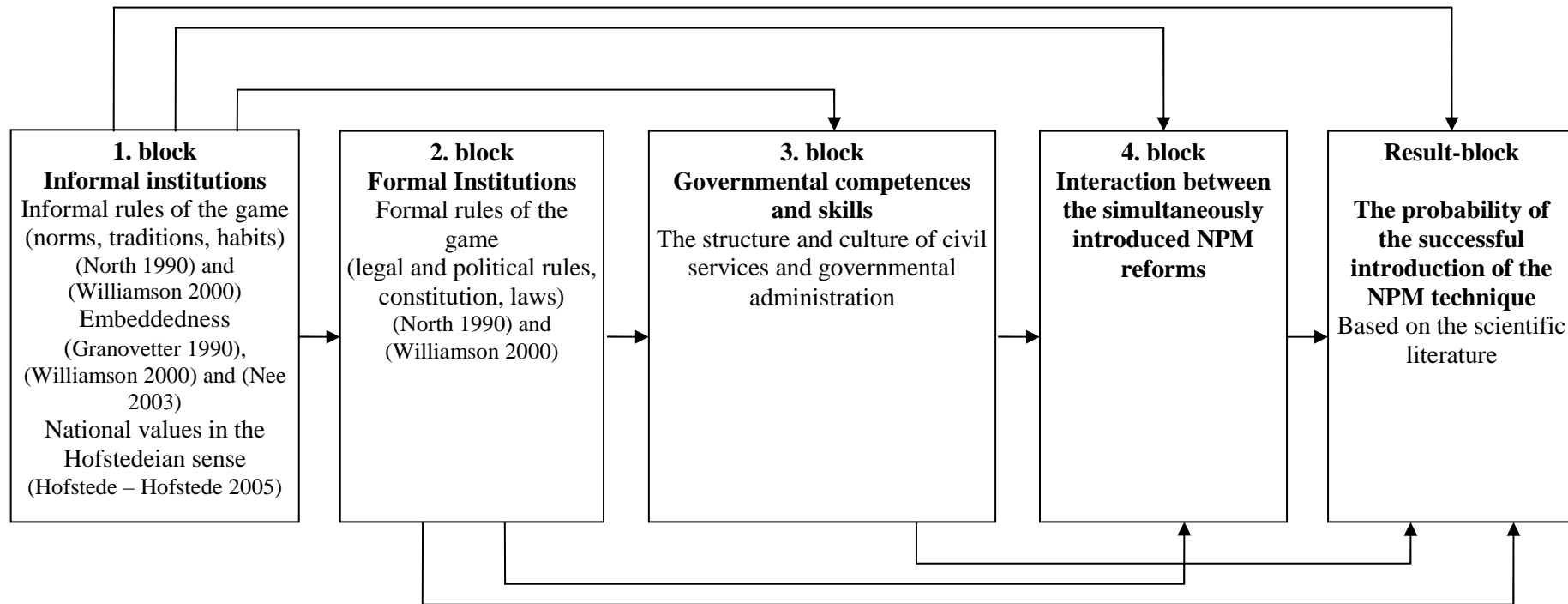
---

<sup>13</sup> However, by the analysis of the first two blocks we can gain information about the third block as well. As Pillay (2008:380) states: „ Generally speaking, managers and leaders, as well as the people they work with, are part of a national society. In understanding their behaviour, one has to understand the society they live and function in.”

<sup>14</sup> The analysis of the reforms that influence each other in a given time period is to be particularly emphasized. During the introduction of the NPM reforms there can be an optimal order, which is to be followed by the decision makers in order to achieve success. Besides this, certain NPM instruments formulate conflicting expectations and objectives, so their concurrent introduction – because of the conflicting objectives - will lead to failure.

Figure 2.

The causality between the factors determining the successful implementation of the NPM



Source: Own figure

Other influencing factors appearing in the literature: economic pressures, political support, social changes (for instance: growth in the number of skilled workers), political changes (weakening powers of the unions, increasing power of the non-elected public officials), changes in the civil sector (weakening of the professional interest groups, for instance: teachers, medical doctors, etc.), technological changes, pressures from the international organizations, fashion, etc.

## 2.1 First block, informal institutions<sup>15</sup>

Informal institutions are the rules, that are unconsciously accepted and spontaneously followed by the individual, and which make social coordination more fluent. They are the most efficient coordination instruments of the relationships between the millions of actors making up society with various individual interests. Informal institutions change slowly, which is one of their main virtues, but this characteristic has drawbacks as well. They provide security in the changing world, but they hinder the development of a given society. It is difficult to say how informal institutions arise. Fundamentally they are a product of a learning process, which stems from the collective processing of past events. Societies experience a great deal of internal and external influences during their history. The survival of a given group/society depends on the successful answers given to these influences. The repeatedly successful solutions become embedded in the subconscious of the members of society and they help the successful adaptation of the members of society in the long-run. Embeddedness also means that the members of society unconsciously rely on these informal institutions for the solution of certain situations.

Informal institutions, whatever the definition we use, are intertwined with the notion of culture.<sup>16</sup> According to Hofstede (1984:389):

“Culture can be defined as the collective programming of the mind which distinguishes the members of one category of people from those of another.”

Hofstede’s definition allows for a broad interpretation, in any case the “collective programming of the mind” highlights certain characteristics of culture. Programming means that the system answers automatically to certain effects with a given response. Capturing culture through programming makes it clear that informal institutions like traditions, also called by North informal constraints, are identical notions to culture, at least from the perspective that both culture and informal institutions are efficient coordinating instruments of social – including even economic and political – transactions.

---

<sup>15</sup> See the proxy variables of the informal institutions in the appendix, table 1.

<sup>16</sup> This is also stated by Pejovich (1999:166): “Thus, informal institutions are the part of a community’s heritage that we call culture.”

## **2.2 Second block, formal institutions<sup>17</sup>**

Following Williamson in the second block we wish to capture formal institutions. Williamson (2000:598) classifies the following into the second block: public policy decision making, legislation and bureaucracy, the constitution, laws and property rights. Williamson (2000:598) defines the second block as the following:

“Constrained by the shadow of the past, the design instruments at Level 2 include the executive, legislative, judicial, and bureaucratic functions of government as well as the distribution of powers across different levels of government (federalism). The definition and enforcement of property rights and of contract laws are important features.”

This definition is very important regarding to the selection of the proxy variables! In order to capture the second block, it is worth to capture the following with proxy variables: legal system, political system – including for instance the electoral system, the relationship and the distribution of power between the local government system and the central government. In addition to this, we must measure in some way the strength of property rights and contract enforcement, when we include this block into our model.

The further characteristic of formal institutions is that they increase the stability of the working of society by extorting the expected conforming behaviour from the members of society. This is necessary, because social actors only follow informal institutions with a certain probability; the possibility of deviant behaviour always exists. This characteristic assumes that formal institutions mainly stem from informal institutions.

## **2.3 The capturing methods of success**

Following the short introduction of the independent variables, a review of capturing the success of the reforms belonging to the NPM movement is presented. All together 31 democratic market economies are analyzed at the system level, where the analytical units are nation-states, which are examined based on their reforms realized in various time intervals (1980-1990, 1990-2000, 2000-2010). The time intervals of the analysis are short- and mid-run, so in the case of New Zealand the realized reforms taking place between 1980 and 1990 are considered as successful despite the fact that from 2000 onwards more and more criticism

---

<sup>17</sup> See the proxy variables of the formal institutions in the appendix, table 2.

has been expressed as regards to the effectiveness of the reforms. (Duncan – Chapman 2010) (Lodge – Gill 2011) Our objective is to provide a comprehensive, holistic analysis of the NPM reforms. The results are based on a thorough review of the scientific publications about the realized NPM reforms in the given decades; we do not examine certain sectors and certain solutions. In doing so, the following procedure was used. Each country's success in the implementation of the NPM reforms in the given decade is classified on a scale of 1 to 10, where 10 was the best and 1 was the worst value. Based on the literature review (several hundreds of journal articles and books) an expert estimation of the success of the given reforms is provided. A judgment on success is made based on the breadth and the depth of the reforms. By breadth we mean which sectors of the public sphere and which levels of public administration (central government, levels of local governments) were affected by the reforms. By depth we mean the institutionalization of the realized reforms (how enduring is the influence of the given reform) and their diversity (what kind of NPM instruments were used). In the case of each country, at least four independent expert analyses are taken into consideration, out of which at least two were written by the expert of the given country. During the selection of the studies analyzed, we aimed to develop our conclusions based on the evaluation of as many sectors and NPM solutions as possible.<sup>18</sup>

We are aware of the fact that decisions based on literature review are not unambiguous, since it is conceivable that another researchers could to a certain extent come to different conclusions.<sup>19</sup> This can even be the result of personal judgment, but it can also be the result of that he or she has read other studies. In order to reach a scientifically provable conclusion, during the analysis of the statistical model we will examine how robust the measurement results of success are.

### **3. The description of the statistical analysis**

Our model, which was developed with the help of the above described variables, was tested through statistical methods and secondary sources. We used SPSS software for the statistical running of the model. First, the number of the proxy variables used for capturing informal and formal institutions found on the left side of the model was reduced. To achieve this, a principal component analysis was carried out.

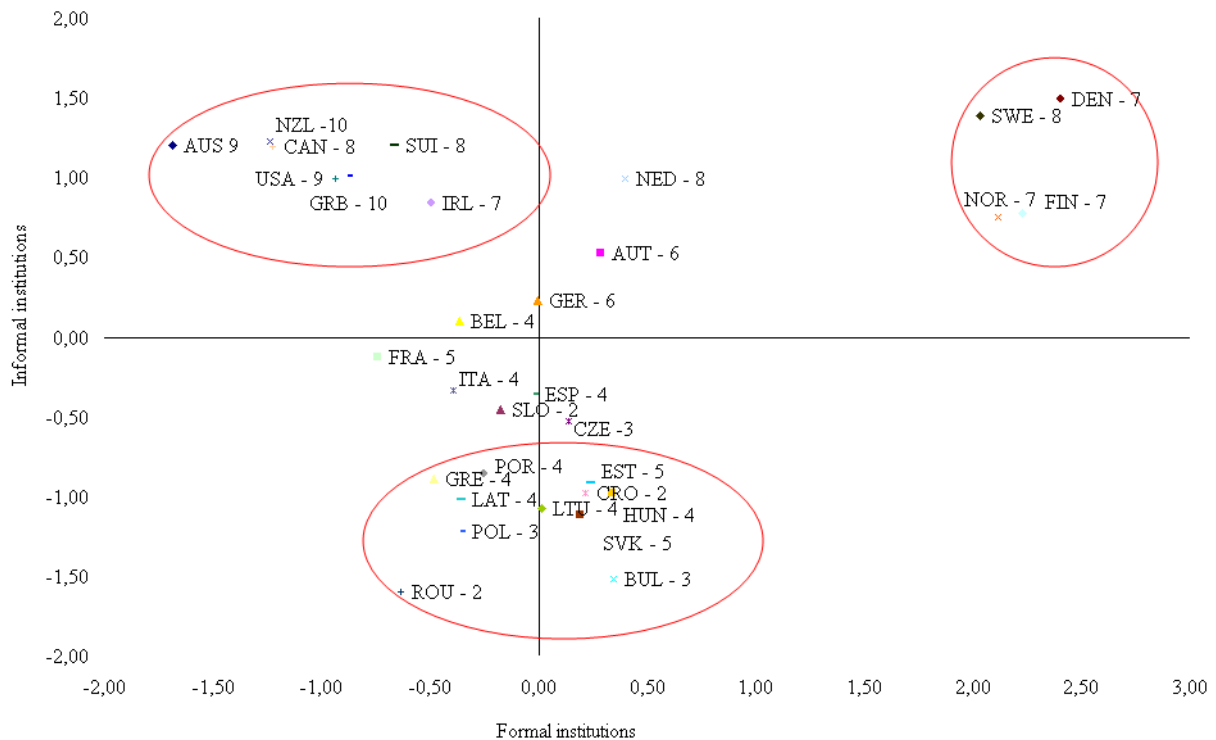
---

<sup>18</sup> See the score of the examined countries in the appendix, table 3.

<sup>19</sup> About the measurement of the effectiveness of the NPM reforms see also: (Hood 1995; Pollitt and Summa 1997; Barzelay 2001; Ferlie and Steane 2002; Jones and Kettl 2003; Wollmann 2003; Gualmini 2008; Torres 2004; Van de Walle and Hammerschmid 2011).

Figure 3.

The values of the informal and formal intuitional factors in the case of the 31 countries



Source: Own figure

The high values of the principle component of the informal institutions are characteristic of such societies, where the people have the following self-image: they are satisfied with their lives, which according to their opinion can be influenced by them, and they experience and express the joys of life. They trust in each other, they tolerate social differences, and they think liberally about the world, the power distance between people is small. They think as individuals, in other words individual freedom is important for them, they are willing to take risks, and they do not expect the state to create their welfare. They do not support the intervention of the state either in the economy or in their lives; rather they are confident in themselves, in the market and in free competition. When setting their objectives they rather focus on the short-run. Based on this description the countries with high values for the principal component developed from the variables of the informal institutions, are tolerant, pro-market and pro-competition, individualist societies built on mutual trust with post modern value systems (Inglehart 1999), and their objective is to maximize individual happiness.

The high values of the principle component of formal institutions are characteristic of such countries, which have Scandinavian type legal systems, proportional and party list

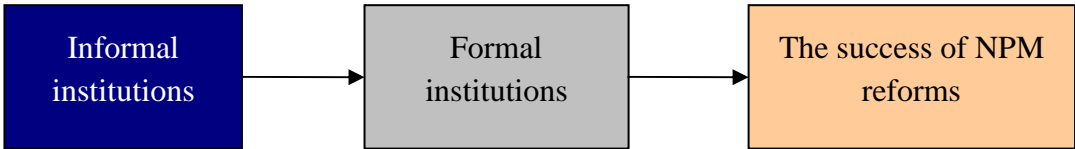
electoral systems and unicameral parliaments with a high proportion of female representatives. In addition, in these countries the position of local governments is stable; they have significant resources, which are complemented by significant authority and human resources. The Anglo-Saxon legal traditions, the electoral system built on simple majority, or the bicameral parliament have a negative correlation with the value of the principle component.

After the principle component analysis, two versions of our model were developed to test the reliability of our results. Both variations are based on the path analysis model, which consists of the series of related multivariate linear regressions. The success of the NPM reforms is captured through a 10 item success scale based on the literature, which was also tested with a 5 item success scale. Before running the model and presenting the results we would like to highlight one important condition. We consider the 31 countries included in the analysis as the population, in other words we do not consider the countries chosen by us as a sample. It follows that the conclusions of this study cannot be applied and generalized to other countries. The reason for this is that the subject of our analysis, the NPM movement, is only able to exert positive influence in a democratic and pro-market environment, since the roots of the movement go back to such economic theories, which cannot be applied in authoritarian and anti-market environments. As a result, we consider the countries included in the analysis as a population and not a sample, which means that the significance level analysis loses its importance. In addition, there is no need for analyses that assess in what magnitude the sample fits the characteristics of the population.

The path analysis models are in reality a series of regression models suitable for testing the cause and effect relationship deductively devised by the researcher.<sup>20</sup> By developing a path analysis model a probable causal direction can be tested. The causality applied in the current study is the following:

Figure 4.

The direction of the causality of the model (exogenous variable: informal institutions)



Source: Own figure

<sup>20</sup> The linear multivariate regression analysis is explained in details by numerous books (Ember – Ember 2009), so we can set aside the methodological introduction.

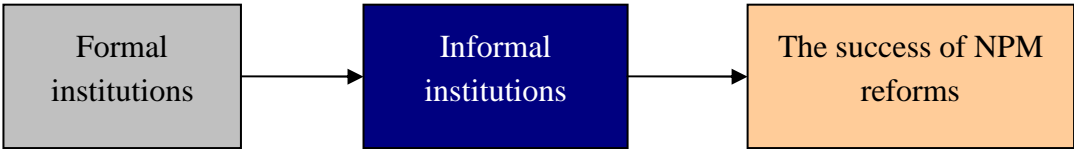


We know that numerous other factors influence the success of the NPM reforms (see for instance the 3. and the 4. blocks of our model); however we will obtain their combined influence and not the influence of each factor. Let us assume that regarding to the success of the NPM reforms the combined explanatory power of the independent variables included in our model is 25%, then the influence of the other variables explains 75%.

Aside from the causal direction mentioned above, we also analyze that if we assume that the formal institutions influence the informal institutions, then what results would we get.

Figure 5.

The causal direction of the model (exogenous variable: formal institutions)



Source: Own figure

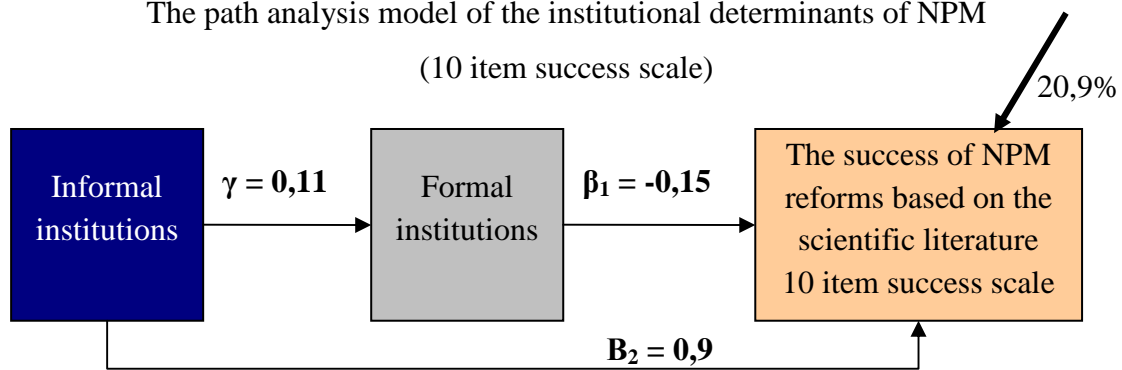
There is a significant theoretical difference between the two directions. In terms of methodology the question is: do we consider the informal institutions or the formal institutions as the exogenous variable? We could also assume a symmetrical relationship between the two factors, so the arrow between them could point into both directions. However, we will not get numerical differences between the two approaches.<sup>21</sup> In addition, an important characteristic of path analysis models is that all variables included in the model are controlled by the previous variables in the model.

---

<sup>21</sup> This has computational reasons. In this case, when we use one independent and one dependent variable during the application of linear regression, then when we estimate the variables, the value of the standardized regression coefficient (beta), which is associated with the dependent variable, will not change. It helps the understanding if we imagine a coordinate system, in which the linear regression line is located. If we switch the two variables, then in reality this means the same as switching the x and the y axes, whereby the character of the line remains the same. Further explanation is that in the case of the bivariate regression (in the case of one dependent and one independent variable) the value of the regression beta is equal to the value of the correlation between the two variables. However, correlation is a symmetrical metrics.

Figure 6.

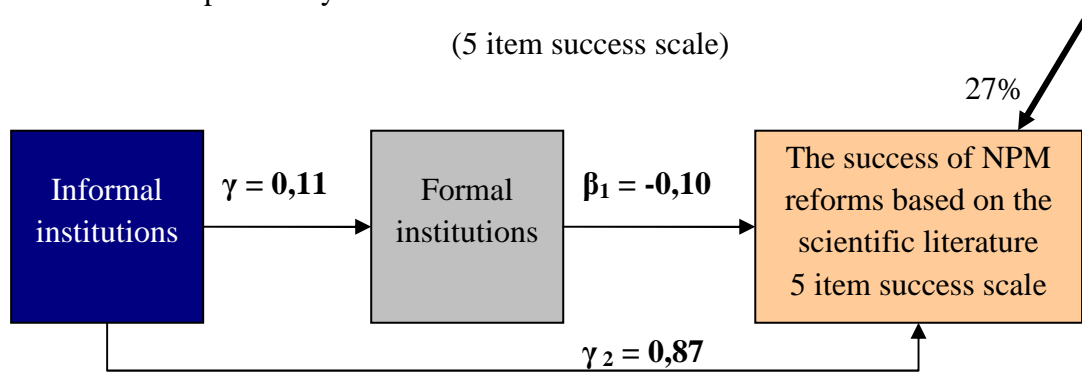
The path analysis model of the institutional determinants of NPM  
(10 item success scale)



Source: Own figure

Figure 7.

The path analysis model of the institutional determinants of NPM  
(5 item success scale)



Source: Own figure

After running the path analysis models we can state that we found a strong correlation between the success of the NPM reforms captured by the literature and the informal and formal institutions. The results of the statistical analysis of our model highlight that there is a strong and clear relationship between the success of the NPM reforms and informal institutions, while the effects of formal institutions are significantly more modest.

#### 4. Results

Following the evaluation of the models, now we can provide answers to the research questions of the current study. Let us look at our questions and hypotheses!

*Do informal and formal institutions influence, and if yes, then how and to what extent, the opportunities for the successful implementation of the management techniques being introduced under the rubric of the NPM movement?*

Based on our analysis, informal institutions significantly influence the likelihood of the successful implementation of the reforms belonging to the NPM movement, and they drastically reduce the uncertainty associated with it. We claim that those countries are able to successfully implement the management techniques belonging to this reform movement, where informal institutions are compatible with the approach of the NPM reforms, in other words where social norms support liberal, pro-market and pro-competition values. The NPM reforms strongly rely on the private sector, and on the power of the market. As a result, there is a need for a well functioning market economy, the essential prerequisite of which is that the members of society are confident in themselves, they are entrepreneurial, and they do not expect the state to solve their problems. Those values, norms, habits, traditions and national culture, which were captured by the positive values of the principal component of informal institutions, fit closely to the value system of the NPM reforms.

Based on the statistical model we claim that the principle component of formal institutions, by which the legal and political formal institutions of the countries analyzed were described, influences the likelihood of the success of the NPM reforms much more modestly, than the principle component capturing the informal part of the cluster of institutions. Therefore, a reform belonging to the NPM movement can be successful even if formal institutions of the given country do not support this, as long as informal institutions support the implementation and realization of the reform.

*What kind of institutional framework (informal and formal institutional constellation), is necessary in a given country for a successful implementation of a reform belonging to the NPM movement?*

The reforms belonging to the NPM movement will most likely be successful, if they are introduced in the cluster of institutions that fits the approach of the movement. Thus, the likelihood of the successful implementation is larger in such societies, where the members of society trust each other and their political institutions, are satisfied with their lives and their

financial situation, individualists, confident in themselves and able to tolerate uncertainty and diversity, and have postmodern value systems.

In case of formal institutions, our analysis did not yield such clear results. What we can claim with great likelihood is that the individual district electoral system fits better to the approach of the NPM reforms than the proportional electoral system, and the Anglo-Saxon legal origins fit better the NPM reforms than the Scandinavian legal foundations, however even these statements do not mean a really decisive difference. Based on our analysis we can claim that formal institutions do not define the success of the NPM reforms, their influence is minimal compared to the influence of informal institutions.

*Can a successfully applied NPM reform from a given institutional environment be successfully replicated in another, different institutional environment?*

Based on our study only a more complex answer can be provided to this research question. Since according to our results the influence of informal institutions dominates, an NPM reform can be successfully replicated in such an institutional environment, where informal institutions are the same, even when formal institutions differ. This is the case for the Anglo-Saxon and the Scandinavian countries: regarding to the NPM reforms the relevant informal institutional factors are almost the same. It is also important to highlight that the informal institutions of these countries are not completely identical, so the NPM reforms are realized differently. Imitation, simple copying would not have been successful even in this case, as knowledge and experience sharing can only be successful, if they fit to the informal institutions of the given country. The more different the informal institutional systems of two countries are, the higher the chance of failure is during the adaptation process, and thus the NPM reforms to be implemented must be modified. Beyond a certain level of institutional dissimilarity, reforms reflecting the values of the NPM movement can be realized only with a very small probability. In the case of those countries with cultures significantly differing from the values of the NPM movement, other types of reforms can be successful with greater probability. These can even lead to similar results as the NPM reforms. This question however demands further research. Based on the current study we cannot provide a scientifically valid answer to the question of what type of reforms could lead to similar results in the Central and Eastern European countries.

*Can the reforms belonging to the NPM movement be introduced and effectively sustained in the long-run taking into account the cluster of institutions characteristic of Hungary?*

Based on the cluster of institutions characteristic of Hungary, we expect that the implementation of the reforms belonging to the NPM movement will be unsuccessful and the implemented reforms will not be sustainable in the long-run. Hungary can be characterized by such informal institutions, which are in conflict with the values of the NPM movement. Based on the statistical analysis of the data of the EVS from 1999, the following picture develops about the informal institutions of the Hungarian society: the country can be characterized by a medium level of trust and the majority of the members of society are dissatisfied with their lives. In comparison with other Central and Eastern European countries included in the analysis, Hungarians have the least confidence in the markets, and they support the bureaucratic coordination most strongly. This is understandable in light of the fact that the majority of the Hungarians feel that they do not control their lives, which are strongly influenced by external factors. Based on the analysis Hungarians are highly intolerant, are rather uncertainty avoiders, and they can be characterized by strongly conservative attitudes. Their relationships are also characterized by high power distance.

Based on this we can claim that the approach of the NPM movement is alien to the traditions of the Hungarian society, and differs significantly from the norms and traditions accepted by the members of society. Because of their social norms and culture, it is likely that the Hungarian public administration will not be able to accept the reform concepts suggested by the NPM movement, which will fall through either during their implementation or during their operations phase. It is conceivable that instruments belonging to certain NPM movements will survive in the longer run, but they will be distorted and they will adjust to the informal institutions of Hungary, and cannot be characterized by the values of the NPM. Based on the literature we can claim that in such cases these instruments do more harm than good for the public sector of the given country. During the reform of the Hungarian public sector the toolkit of the NPM movement should not be applied or imitated entirely, it should be adopted to the Hungarian institutional environment, which could demand such levels of changes that the modified instruments could not be considered as part of the NPM movement anymore. Out of the practices of the more developed countries, it worth to examine the public sector reforms of the Southern European countries, since the informal institutions of these countries stand the closest to ours, however we have to find our own way.

## 5. Main findings and summary

*The most important yield of the study is that it proved through statistical analyses that informal institutions, in other words norms, traditions, habits, beliefs and social culture play a decisive role in deciding whether the reforms related to the new public management movement can be successfully introduced in a given country or not. If the informal institutions of a country differ from the approach of the NPM movement, then the low probability of the successful implementation should prompt professional practitioners to fit the reforms to be introduced to the informal institutional facilities of the country. The practical relevance of this statement is significant: it can even influence the aid policy of the European Union. If the culture or traditions of a new member state differ from the cultures of the leading countries of the EU, then the European Union takes up a huge risk, if it encourages / forces the new member states to implement such reforms that do not fit the informal institutions of the given countries. In recent years the European Union has spent significant amounts of money to support of the reforms in the new member states, a decisive part of which can be linked to the NPM movement. Based on the current study we can claim that these reforms will be unsuccessful with high probability, if during their implementation they do not sufficiently take into consideration the informal institutional environment of the given country. In most cases the result is squandered billions, or the development of non-sustainable systems, or even worse, distorted reforms causing effects contrary to the objectives. At the beginning of this paper we alluded to some case studies, which analyzed the introduction of the NPM in Africa and Asia. They pointed out the seriously negative effects of the reforms belonging to the NPM movement. These cases are “trivial” in the sense that in the instances of non-democratic systems the toolkit of the NPM movement works in a dysfunctional manner. Based on the current study we can claim that even under democratic and market economic conditions the success of the NPM reforms cannot be guaranteed.*

Based on the results of the study we can claim that the possible introduction of the NPM reforms depends decisively on the informal institutions of a society and to a smaller extent on its formal institutions, while the magnitude of the success of the already implemented reforms is also determined by the culture of the public administration, and other factors not examined (3. and 4. blocks of our model) in the study.

*We consider the modelling and the description of the differences between the influences of formal and informal institutions on the NPM reforms as an important result. During our analysis it emerged that the possibility of the implementation of the NPM reforms depends on informal institutions, which change slowly and which are givens for politicians and for*

business people at a given point in time. The NPM movement during the past thirty years can be characterized as a wave of fashion, which was followed by politicians in order to maximize votes. Let us assume that a politician, say that the country's Minister of Economy, intuitively realizes that the reforms belonging to the NPM movement and demanded by the member of society, or by a part of it (for instance the scientific elite), or even by an external organization (EU, IMF, etc.) do not fit the country's culture. In this case, he or she keeps public interests in mind, if he or she does not embark on such a reform that is doomed to failure with high probability, so instead he or she handles the pressure laid on him or her rhetorically. Let us not forget that explaining why he or she does not support the implementation of a reform, which is successful in another country, is a quite difficult and dangerous political task. According to Pollitt, the NPM movement is in a great part the series of such kind of "verbal reforms" (Pollitt 2007:14), which he calls discursive convergence. This could seem as an act of compensation, but based on the results of our research it is conceivable that in the decisive majority of the cases politicians act correctly, when they do not introduce a given NPM reform. *Based on our results, the discursive convergence can be interpreted as a rational and effective defence mechanism.*

*Our model also points out that those cultural attributes, which are labelled by Inglehart (1999) as postmodern, could play a dominant role in the success of the NPM reforms. This is by all means thought-provoking, when we decide on whether to recommend or not the implementation of the reforms related to the NPM movement in the countries of Central and Eastern Europe, where the societies of these countries cannot be characterized by postmodern attributes yet. By reviewing the results of the study, we can claim that between the informal institutions of the countries of Central and Eastern Europe and the countries successfully implementing NPM reforms there exists such a huge gap that most likely these countries will not be able to adapt, in other words to tailor the NPM reforms to their own institutional environments. The examples that have been achieved so far also attest this, let us think of the Slovakian and Czech practices (Nemec, J. –Merickova, B. – Ochrana, F. 2008), (Nemec 2010), or even the introduction and realization of the Hungarian TÉR system. Based on our study, the reasons behind the failures should be found between the differences in the approach and value system necessary to the success of the NPM reforms and the informal institutional systems of the Central and Eastern European countries.*

*Our study pointed out that the role played by formal institutions in the successful implementation of the NPM reforms is rather small. This is proved by the fact that the values of the principle components of informal institutions are the highest in the case of the*

Scandinavian countries, yet these countries were able to adapt the reforms of the NPM movement successfully. The root of the difference between the Anglo-Saxon and the Scandinavian reforms is worth to be analyzed further, since according to our assumption, the differences between the informal institutions stand behind this as well (think of the description in the case of 1. model version).

## 6. References

- Acemoglu, D. - Johnson, S. - Robinson, J. A. (2002): Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution. *The Quarterly Journal of Economics*, Vol. 117, No. 4, pp. 1231-1294.
- Barzelay, M. (2001): *The New Public Management. Improving Research and Policy Dialogue*. University of California Press, Berkeley
- Beblavy, M. (2002): Management of Civil Service Reform in Central Europe. In: Péteri, G. (ed.): *Mastering Decentralization and Public Administration Reforms in Central and Eastern Europe*. Open Society Institute, Local Government and Public Service Reform Initiative, Budapest, pp. 55-72.
- Bouckaert, G. et. al. (2009): *Public Management Reforms in Central and Eastern Europe*. NISPAcee Press, Bratislava
- Duncan, G. - Chapman, J. (2010): New Millennium, New Public Management and the New Zealand Model. *The Australian Journal of Public Administration*, Vol. 69, No. 3, pp. 301–313.
- Ember, C. R. - Ember, M. [2009]: *Cross-Cultural Research Methods*. Second Edition, Altamira Press, Lanham
- EC (2009): Eurobarométer 72. Közvéleménykutatás az Európai Unióban. 2009 autumn. Nemzeti jelentés: Magyarország.
- Ferlie, E. – Steane, P. (2002): Changing Developments in NPM. *International Journal of Public Administration*, Vol. 25, No. 12, pp. 1459–69.
- Gottlieb, M. (1953): The Theory of an Economic System. *The American Economic Review*, Vol. 43, No. 2, pp. 350-363.
- Granovetter, M. (1990): The Old and the New Economic Sociology: A History and an Agenda. In: Friedland, R. – Robertson, A. F. (eds.): *Beyond the Marketplace: Rethinking Economy and Society*. Aldine de Gruyter, New York. pp. 99-112.



- Greif, A. & Tabellini, G. (2010): Cultural and Institutional Bifurcation: China and Europe Compared. *American Economic Review*, Vol. 100, No. 2, pp. 135-40.
- Greif, A. (2006): *Institutions: Theory and History Comparative and Historical Institutional Analysis*. Cambridge University Press, Cambridge
- Gualmini, E. (2008): Restructuring Weberian Bureaucracy: Comparing Managerial Reforms in Europe and the United States. *Public Administration*, Vol. 86, No. 1, pp. 75–94.
- Hofstede, G. - Hofstede, G. J. (2005): *Cultures and organizations: software of the mind. Intercultural cooperation and its importance for survival*, 2nd ed. New York, McGraw-Hill.
- Hofstede, G. (1984): The Cultural Relativity of the Quality of Life Concept. *The Academy of Management Review*, Vol. 9, No. 3, pp. 389-398.
- Hofstede, G. (1981): Culture and Organization. *International Studies of Management & Organization*, Vol. 10, No. 4, pp. 15-41.
- Hood, C. (1995): The “New Public Management” in the 1980s: Variations on a theme. *Accounting, Organizations and Society*, Vol. 20, No. 2-3, pp. 93-109.
- Hy, R. J. - Wollscheid, J. R. (2008): Economic Modeling. In: Miller, G. J. – Yang, K. (eds.): *Handbook of Research Methods in Public Administration*. Taylor & Francis Group, Boca Raton, pp. 787-821.
- Inglehart, R. - Baker, W. E. (2000): Modernization, Cultural Change, and the Persistence of Traditional Values. *American Sociological Review*, Vol. 65, No. 1, pp. 19-51.
- Inglehart, R. (1999): Globalization and Postmodern Values. *The Washington Quarterly*, Vol. 23, No. 1, pp. 215–228.
- Jones, L. R. - Kettl, D. F. (2003): Assessing Public Management Reform in an International Context. *International Public Management Review*, Vol. 4, No. 1, pp. 1-18.
- Kornai, J. (1992): *The socialist System. The Political Economy of Communism*. Clarendon Press, Oxford
- Lodge, M. - Gill, D. (2011): Toward a New Era of Administrative Reform? The Myth of Post-NPM in New Zealand. *Governance*, Vol. 24, No. 1, pp. 141–166.
- Marobela, M. (2008): New public management and the corporatisation of the public sector in peripheral capitalist countries. *International Journal of Social Economics*, Vol. 35, No. 6, pp. 423-434.

- Medgyesi, M. - Tóth, I. Gy. et. al. (2007): Adótudatosság, fiskális illúziók és az állami újraelosztással kapcsolatos preferenciák 2007-ben Magyarországon. Tárki Zrt., Budapest. Downloaded: <http://www.tarki.hu/adatbank-h/kutjel/pdf/b190.pdf>. Accessed: 2010.07.16.
- Meyer-Sahling, J-H. (2009): Sustainability of Civil Service Reforms in Central and Eastern Europe five years after Eu Accession. Sigma paper No. 44, OECD & EU. Downloaded: [http://www.sigmaweb.org/document/32/0,3343,en\\_33638100\\_34612958\\_38073440\\_1\\_1\\_1\\_1,00.html](http://www.sigmaweb.org/document/32/0,3343,en_33638100_34612958_38073440_1_1_1_1,00.html), Accessed: 2010.07.20.
- Nee, V. (2003): New Institutionalism, Economic and Sociological. Working Paper. Center for the Study of Economy and Society, Cornell University, Downloaded: <http://www.soc.cornell.edu/faculty/nee/pubs/newinstitutionalism.pdf>, Accessed: 2010.09.07.
- Nemeč, J. (2010): New Public Management and its Implementation in CEE: What Do we Know and where Do we Go? *NISPAcee Journal of Public Administration and Policy*, Vol. 3, No. 1, pp. 31-52.
- Nemeč, J. – Merickova, B. – Ochraňa, F. (2008): Introducing Benchmarking in the Czech Republic and Slovakia. Processes, problems and lessons. *Public Management Review*, Vol. 10, No. 5, pp. 673–84.
- North, D. C. (1991): Institutions. *Journal of Economic Perspectives*, Vol. 5, No. 1, pp. 97-112.
- North, D. C. (1990): Institutions, Institutional Change and Economic Performance. Cambridge University Press, Cambridge
- North, D. C. (1984): Transaction Costs, Institutions, and Economic History. *Journal of Institutional and Theoretical Economics*, Vol. 140, No. 1, pp. 7-17. In: Furubotn, E. G. – Richter, R. [1991]: The New Institutional Economics. A Collection of Articles from the Journal of Institutional and Theoretical Economics JITE. J.C.B. Mohr, Tübingen, pp. 203-213.
- Pejovich, S. (1999): Effects of the Interaction of Formal and Informal Institutions on Social Stability and Economic Development. *Journal of Markets & Morality*, Vol. 2, No. 2, pp. 164-181.
- Pillay, S. (2008): A cultural ecology of New Public Management. *International Review of Administrative Sciences*, Vol. 74, No. 3, pp. 373–394.

- Pollitt, C. (2007): Convergence or Divergence: What has been happening in Europe? In: Pollitt, C. - van Thiel, S. – Homburg, V. (eds.): *New Public Management in Europe. Adaptation and Alternatives*, New York, Palgrave Macmillan, pp. 10-25.
- Pollitt, C. – Summa, H. (1997): Trajectories of Reform: Public Management Change in Four Countries. *Public Money & Management*, Vol. 17, No. 1, pp. 7-18.
- Torres, L. (2004): Trajectories in public administration reforms in European Continental countries. *Australian Journal of Public Administration*, Vol. 63, No. 3, pp. 99-112.
- Tóth, I. Gy. (ed.) (2009): *Tárki Európai társadalmi jelentés 2009*. Tárki Zrt., Budapest
- Van de Walle, S. – Hammerschmid, G. (2011): Coordinating for Cohesion in the Public Sector of the Future, COCOPS Project Background Paper. COCOPS Working Paper No. 1. [http://repub.eur.nl/res/pub/23009/COCOPS\\_workingpaper\\_No1.pdf](http://repub.eur.nl/res/pub/23009/COCOPS_workingpaper_No1.pdf) (accessed: July 5, 2012).
- Williamson, O. E. (2000): The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature*, Vol. 38, No. 3, pp. 595-613.
- Wollmann, H. (2003): Evaluation in public-sector reform: Towards a ‘third wave’ of evaluation? In: Wollmann, H. (ed.): *Evaluation in Public-Sector Reform. Concepts and Practice in International Perspective*, Cheltenham, United Kingdom: Edward Elgar Publishing Limited, pp. 1-11.
- Worldbank (2009): Governance Matters. VIII. Aggregate and Individual Governance Indicators 1996–2008. Policy Research Working Paper 4978. The World Bank, Development Research Group, Macroeconomics and Growth Team, Washington D.C.

## 7. Appendix

Table 1.  
The proxy-variables of informal institutions  
(Bold: proxies after the principal component analysis)

The name of proxy-variables	Source
<b>Trust</b>	World Value Survey / European Value Survey Questions: A165.- Most people can be trusted E085.- Confidence: Justice System E076.- Confidence: The Civil Services E075.- Confidence: Parliament
<b>Optimism – pessimism / Feeling of Happiness</b>	World Value Survey / European Value Survey Questions: A008.- Feeling of happiness A170.- Satisfaction with your life C006.- Satisfaction with financial situation of household C033.- Job satisfaction
Fairness	World Value Survey / European Value Survey
<b>Tolerance</b>	World Value Survey / European Value Survey Questions: A035.- Important child qualities: tolerance and respect for other people A125.- Neighbours: People of a different race A129.- Neighbours: Immigrants/foreign workers F118.- Justifiable: homosexuality F120.- Justifiable: abortion
Role of the state	World Value Survey / European Value Survey
<b>Opinion about market coordination and bureaucratic coordination</b>	World Value Survey / European Value Survey Questions: E036.- Private vs state ownership of business E039.- Competition good or harmful C060.- How business and industry should be managed
Obedience	World Value Survey / European Value Survey
Responsibility taking or obviating	World Value Survey / European Value Survey
<b>External / internal factors are decisive in life</b>	World Value Survey / European Value Survey Questions: A173.- How much freedom of choice and control C034.- Freedom decision taking in job
Individualism / Collectivism	World Value Survey / European Value Survey
Risk taking or risk avoidance	World Value Survey / European Value Survey
Working culture	World Value Survey / European Value Survey
Political ideology (left – right)	World Value Survey / European Value Survey
<b>Liberal / Conservative thinking</b>	World Value Survey / European Value Survey Questions: D018.- Child needs a home with father and mother D019.- A woman has to have children to be fulfilled D022.- Marriage is an out-dated institution F126.- Justifiable: taking soft drugs

Religiousness	World Value Survey / European Value Survey
Breach of norms and rules	World Value Survey / European Value Survey
Nationalism	World Value Survey / European Value Survey
<b>Power distance index</b>	<b>(Hofstede – Hofstede [2008]) and <a href="http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx">http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx</a></b>
<b>Individualism index</b>	<b>(Hofstede – Hofstede [2008]) and <a href="http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx">http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx</a></b>
Masculinity index	(Hofstede – Hofstede [2008]) and <a href="http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx">http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx</a>
<b>Uncertainty avoidance index</b>	<b>(Hofstede – Hofstede [2008]) and <a href="http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx">http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx</a></b>
Long-term orientation index	(Hofstede – Hofstede [2008]) and <a href="http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx">http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx</a>
<b>Indulgence vs. restraint index</b>	<b>(Hofstede – Hofstede [2008]) and <a href="http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx">http://www.geerthofstede.nl/research--vsm/dimension-data-matrix.aspx</a></b>
Language family	

Source: Own compilation

Table 2.  
The proxy-variables of formal institutions  
(Bold: proxies after the principal component analysis)

The name of proxy-variables	
Magnitude of state centralization	Economic Freedom of the World – Fraser Institute General government consumption spending as a percentage of total consumption Transfers and subsidies as a percentage of GDP Government enterprises and investment
Rule of Law	Economic Freedom of the World – Fraser Institute Judicial independence Impartial courts Protection of property rights Integrity of the legal system Legal enforcement of contracts
Magnitude of state control	Economic Freedom of the World – Fraser Institute Hiring and firing regulations Centralized collective bargaining Price controls
Legal tradition	<b>Anglo-Saxon legal origin</b> <b>German legal origin</b> <b>French legal origin</b> <b>Scandinavian legal origin</b>
Type of government	Minority government Coalition government Great-coalition government One-party ruled government
Ideology of the government	Conservative Liberal Social-democrat
Electoral system	<b>Single member district</b> <b>First-past-the-post voting</b> <b>Multiple rounds (sequential vote)</b> <b>Party-proportional representation</b> <b>Combination</b>
Chambers of parliament	<b>Unicameral</b> <b>Bicameral</b>
Referendums	Local and national wide Local National None
<b>The participation rate at the first election of the given decade</b>	
<b>Percentage of women in the Parliament in the given decade</b>	
<b>Competencies and responsibilities of local governments</b>	
<b>Local governmental revenues / GDP or state revenues</b>	
<b>Local government employment share as percentage of total governmental employment</b>	

Source: Own compilation

Table 3.  
Scores, measuring the success of the implemented NPM reforms in each analysed country,  
based on literature review (10 – highest, 1 – lowest points)

The name of the country	Score
Scores of NPM reforms implemented between 1980-1990 by countries	
Australia	9
United Kingdom	10
The Netherlands	8
Canada	8
New-Zealand	10
USA	9
Scores of NPM reforms implemented between 1990-2000 by countries	
Austria	6
Belgium	4
Denmark	7
Finland	7
France	5
Greece	4
Ireland	7
Germany	6
Norway	7
Italy	4
Portugal	4
Spain	4
Switzerland	8
Sweden	8
Scores of NPM reforms implemented between 2000-2010 by countries	
Bulgaria	3
Czech Republic	3
Estonia	5
Croatia	2
Poland	3
Latvia	4
Lithuania	4
Hungary	4
Romania	2
Slovakia	5
Slovenia	2

Source: Own figure