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POLICY COHERENCE, EFFECTIVENESS, OPENNESS AND PARTICIPATION IN EUROPEAN UNION

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Abstract

Openness, participation, accountability, effectiveness and the coherence are the indicators of good governance and the changes proposed in the White Paper, adopted by the European Commission in July 2001. The fundamental object of the White Paper is to establish more democratic forms of governance at the different levels.

In this paper, canonical correlation analysis has been employed to examine the relationship between the indicators of good governance, namely the sets of "policy coherence/effectiveness" and "openness/participation" in EU-15 countries.

Key Words: *E-Government, Good Governance, Policy Coherence, Openness, Participation*

JEL Classification: O52

1. INTRODUCTION

By the end of the Cold War, a new oration on governance arose. Economic problems like unemployment, poverty, income disparities and the sudden rise of the parallel economy, black marketeers and criminal networks in recently 'neoliberalised' countries edged on the idea that global neoliberalism could only successfully proceed in a 'sound' governance environment. Not only the neoliberal model, but also the the immature, corrupted and inefficient state administrations were responsible for this process. The transformation in the science of political economy indicates a change in the role of state in the economy by implying better and transparent governance with a call for democratization (Demmerz *et al.,* 2004: 1). In this context, good governance is often defined as a political regime based on the structure which protects the rights, combining with a competent, anti-corrupt and accountable public administration. Governance is "good" when it allocates and manages resources to respond to collective problems, in other words, when a state efficiently provides public goods of necessary quality to its citizens (United Nations, 2007: 4). Hence states should be assessed on both the quality and the quantity of public goods provided to citizens (Rotberg, 2004).

Over the last decade, there is an intensive interest on analyzing European Union as a system of governance[1]. Another query in this debate is to interrogate the European Union's effectiveness and democratic structure. The basic problem in the European Governance has long been stated as the

[1] See Marks (1993), Hooghe and Marks (2001), Jachtenfuchs (2001).

limited decision making capacity (Eberlein and Kerwer, 2004: 122)[2]. Most observers regard European Union political system suffers from performance problems like effectiveness of decision making and democratic legitimity. The exigence for the good governance stems from these problems.

Important contribution by Bouckaert and van de Walle (2003) calls attention to the relationship between trust and good governance and states that trust could be insufficient but necessarily part of a set of indicators which are unnecessary but sufficient for good governance. It is obvious that additional indicators and the detecting interrelationships between those become requisite.

This study makes a contribution to literature through the analysis of the relationship between the indicators of good governance, namely the sets of "policy coherence/effectiveness" and "openness/participation" in EU-15 countries. In section 2, the indicators of good governance based on the White Paper are presented. In section 3, canonical correlation analysis as a method to analyze the relationship among the sets and the definitions of data set used in the analysis are examined. The results of the analysis are presented at section 4. The Section 5 concludes.

2. PILLARS OF GOOD GOVERNANCE: WHITE PAPER

The White Paper on European Governance concerns the way which the Union uses the powers given by its citizens. It calls for a reform to construct a policy – making process to get more people and organizations involved in shaping and delivering EU policy. It enhances greater openness, accountability and responsibility (Commision of the European Communities, 2001: 3).

As explained in the White Paper, there are five principles which prop up the good governance in European Union: openness, participation, accountability, effectiveness and coherence. They underpin democracy and the rule of law in the member states. According to White Paper, these principles should have the following properties (Commision of the European Communities, 2001: 10):

Openness: Considering the decision making by the European Union, the member countries should communicate to each other. The institutions should work in a more open manner. Their language should be accessible and understandable for the general public. In this instance, trust to European Union Institutions would become increasing.

Participation: From conception to implementation, ensuring wide participation by central governments' inclusive approach.

Accountability: Roles in the legislative and executive processes need clarity and responsibility. Every European Union institution must explain the its mission and it has to bear responsibility.

Effectiveness: Policies must be effective and timely. Also, they must be put into the practice by taking into account the possible future impacts and previous experiences.

Coherence: Policies and action must be coherent and easily understood.

[2] They involve veto powers, collective action problems for private action groups and the regulatory competition.

3. METHOD AND DATA

3.1. Canonical Correlation Analysis

In this study, in order to specify the relationship between the sets of "policy coherence/effectiveness" and "openness/participation", canonical correlation analysis will be employed. Canonical correlation analysis is a multivariate statistical model to specify the interrelationship among the two variable sets by calculating maximum correlations between the linear combination of the variable sets. In multiple regression analysis, the relationship between one variable (Y) and two or more variables ($X_1, X_2, \ldots, X_p$) is analyzed. From this point of view, canonical correlation analysis can be considered as a generalized version of the multiple regression analysis in which several (Y) variables are simultaneously related to several X variables (Manly, 2005: 144). Canonical correlation is the name given to the procedure for correlating two derived variables, so called canonical variates, each representing a weighted combination of other variables (Kachigian,1991:156).

The first step in canonical correlation analysis is to derive the canonical functions. Every function has a pair of variates. The first variate corresponds to first set of variables while the second variate corresponds to second set of variables. The maximum number of canonical variates equals the number of the variables in the smallest data set. The first pair of variates is computed so as to have the highest intercorrelation possible between the two sets of variables. Then the second pair of variates is computed so that it exhibits the maximum relationship between the two variates not accounted for by the first pair of variates. In this context, the first pair of canonical variates exhibits the highest intercorrelation, the next pair the second-highest correlation and so forth (Hair *et al*., 1998: 447-450).

This process can be summarized by the equations below (Manly, 2005: 144):

If there are p variables $X_1, X_2, \ldots X_p$, and q variables $Y_1, Y_2, \ldots Y_q$ the linear relationship between these two sets of variables (canonical functions or canonical variates) can be shown by the below equations:

$$u_1 = a_{11}X_1 + a_{12}X_2 + \ldots + a_{1p}X_p$$
$$u_2 = a_{21}X_1 + a_{22}X_2 + \ldots + a_{2p}X_p$$

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$$u_r = a_{r1}X_1 + a_{r2}X_2 + \ldots + a_{rp}X_p$$

and

$$v_1 = b_{11}Y_1 + b_{12}Y_2 + \ldots + b_{1q}Y_q$$
$$v_2 = b_{21}Y_1 + b_{22}Y_2 + \ldots + b_{2q}Y_q$$

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$$v_r = b_{r1}Y_1 + b_{r2}Y_2 + \ldots + b_{rq}Y_q$$

r is the smaller of p and q. The relationship between two sets of variables is chosen so that the correlation between u_1 and v_1 is the maximum. The correlation between u_2 and v_2 is a maximum, subject to these variables' being uncorrelated with u_1 and v_1. and so on.

To interpret the results of the canonical correlation analysis, several methods can be used (Hair *et al*., 1998: 453-454). The first method is to check over the sign and the magnitude of the coefficients in the canonical functions. The second method is to examine the sign and the magnitude of the canonical weight assigned to each variable in its canonical variate. The third method is to analyze the canonical loadings, simple linear combination between a variable and set's canonical variate. They represent the relative contribution of the variable to canonical function. Higher loadings represent the importance of the variable on the calculation of the canonical variate (Rencher, 2001: 371-373). As a final option, canonical cross loadings can be examined. It involves correlating each of the variables with the other set's canonical variate and provides a more direct measure of the relationships among the sets.

3.2. Data

In this study, "good governance" data for 15 European Countries (EU-15) published in the Eurostat database was used. The data covers the averages of the "good governance" data from 2000 to 2008. Table 1 exhibits the variables used in this study:

Table 1: Data Set in the Study

Variables of the policy coherence and effectiveness set	Variables of the openness and participation set
New infringement cases (newinfcase)	E-government on-line availability (egovonlav)
Transposition of Community law (tracomlaw)	E-government usage (egovonusge)
Level of citizens' confidence in EU institutions (levelofconf)	Voter turnout in national elections (votturnout)

In Eurostat's classification the the indicators of "policy coherence/effectiveness" set are the "new infringement cases", "transposition of community law" and "level of citizens' confidence in EU institutions". The indicators of the openness / participation set are the "e-government on-line availability", "e-government usage" and "voter turnout in national elections".

3.2.1. Variables of the policy coherence / effectiveness set

According to Eurostat (2009), the definitions of the policy coherence / effectiveness indicators are depicted below:

New infringement cases, by policy area: This indicator includes new direct actions brought before the Court of Justice, which concern the failure of a Member State to fulfil its obligations.

Transposition of Community law, by policy area - %: This indicator is related to situation of the notification by Member States of the total number of national measures implementing Directives. The percentage of implemented directives is the ratio: directives for which measures of implementation have been notified by Member States, divided by directives applicable on the reference date by Member States. Applicable directives are all directives in force (not repealed) that require implementation in the Member States' internal legal order (within a deadline or prior to the reference date) irrespective of the fact that they have been implemented by one or more Member States.

Level of citizens' confidence in EU institutions - %: The level of citizens confidence in EU institutions (Council of the European Union, European Parliament and European Commission) is expressed as the share of positive opinions (people who declare that they tend to trust) about the institutions.

3.2.2. Variables of the policy openness / participation set

According to Eurostat (2009), the definitions of the openness / participation indicators are depicted below:

E-government on-line availability - %**:** This indicator shows the percentage of the 20 basic services which are fully available online, i.e. for which it is possible to carry out full electronic case handling.

E-government usage by individuals - %**:** Percentage of individuals aged 16 to 74 who have used the Internet, in the last 3 months, for interaction with public authorities (i.e. having used the Internet for one or more of the following activities: obtaining information from public authorities web sites, downloading official forms, sending filled in forms).

Voter turnout in national elections - %: The number of those who cast a vote or 'turn out' at an election includes those who cast blank or invalid votes.

4. RESULTS

In this part of the study, in order to specify the relationship between the sets of “policy coherence/effectiveness” and “openness/participation”, canonical correlation analysis for EU-15 countries has been employed.

Table 2: Canonical Correlations

	1	2	3
Canonical Correlation	0.8804	0.4808	0.1884

The number of canonical correlation is equal to the number of variables in the smaller set. Since we have three variables in both sets, three canonical correlations have been calculated. The canonical correlations on table 1 are the Pearson correlation coefficients of u_1 and v_1, u_2 and v_2 and u_3 and v_3, respectively. They measure the strength of the overall relationship between canonical variates. First canonical correlation is 0.8804. This value indicates a high positive correlation between “policy coherence/effectiveness” and “openness/participation” sets.

Table 3: Tests of Significance of All Canonical Correlations

	Statistic	df1	df2	F	Prob>F
Wilks' Lambda	0.166741	9	22.0542	2.6652	0.0292
Pillai's Trace	1.04181	9	33	1.9508	0.0386
Lawley-Hotelling Trace	3.78476	9	23	3.2241	0.0112
Roy's Largest Root	3.44729	3	11	12.6401	0.0007

We tested all of the canonical dimensions together, listing four multivariate test statistics and their significance levels. Our null hypothesis is that our two sets of variables are not linearly related. We evaluate this hypothesis based on the p-values for the multivariate tests. There are four multivariate statistics calculated by Stata. *Wilks' lambda* is the product of the values of (1-canonical correlation^2). *Pillai's trace* is the sum of the squared canonical correlations. *Lawley-Hotelling trace* is the sum of the values of (canonical correlation^2/(1-canonical correlation^2)). *Roy's largest root* is the square of the largest canonical correlation (UCLA, 2009). df1 & df2 are the degrees of freedom used in determining the F statistic. Prob>F is the p-value associated with the F statistic of a given test statistic. The null hypothesis that our two sets of variables are not linearly related is evaluated with regard to this p-value. For a given alpha level, if the p-value is less than alpha, the null hypothesis is rejected. If not, then we fail to reject the null hypothesis. In our analysis, since the p values are less than 0.05, we reject the null hypothesis that "policy coherence/effectiveness" and "openness/participation" sets of variables are not linearly related at alpha level 0.05 because the p-values are all less than 0.05. These sets has a statistically significant correlation at the 95.0% confidence level.

Table 4: First Linear Combination

		Coefficient
u_1	newinfcase	-0.255031
	tracomlaw	0.711909
	levelofconf	0.220808
v_1	egovonlav	0.644234
	egovonusge	0.683636
	votturnout	0.102534

On table 4, u_1 is the first canonical variate, or first dimension for "policy coherence/effectiveness" set. It is a linear combination of "policy coherence/effectiveness" variables: new infringement cases, transposition of community law and level of citizens' confidence. It is calculated to be maximally correlated with v_1 and orthogonal to all of the other canonical variates. The v_1 is the

first canonical variate, or first dimension for "openness/participation" set. It is a linear combination of "openness/participation" variables: e-government on-line availability, e-government usage and voter turnout in national elections. It is calculated to be maximally correlated with u1 and orthogonal to all of the other canonical variates. Coefficients on table 4 are the canonical coefficients. They define the linear relationships between the variables in a given group and the canonical variates, v_1 and u_1. The raw canonical coefficients are interpreted in a manner analogous to interpreting regression coefficients. Examining the canonical coefficients of the "policy coherence/effectiveness" set, it is obvious that "transposition of community law" has the highest contribution while "e-government on-line availability" and "e-government usage" equally contribute to "openness/participation" set.Table 4 reflects the linear combinations of two sets of variables which have the highest correlation between them. In this case, 3 sets of linear combinations have been formed.

The first set of linear combinations (canonical functions) is

*-0.255031*p1newinfcase +0.711909*p2tracomlaw + 0.220808*p3levelofcitconf*

and

*0.644234*o1egovonlav + 0.683636*o2egovonusge + 0.102534*o3votturnout*

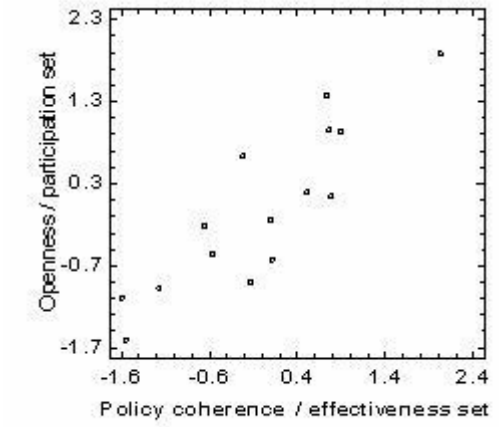

Figure 1: Plot of First Linear Combination

Figure 1 shows the plots of the canonical variates, u_1 and v_1. A definite positive correlation between the two sets can be seen from the figure.

Table 5: Standardized Coefficients for the Policy Coherence/Effectiveness Set

	1	2	3
newinfcase	-0.2550	0.1372	1.6154
tracomlaw	0.7119	0.5653	1.3248
levelofconf	0.2208	0.9630	-0.3356

Table 6: Standardized Coefficients for the Openness/Participation Set

	1	2	3
egovonlav	0.6442	-0.4013	0.7410
egovonusge	0.6836	0.3232	-0.7058
votturnout	0.1025	0.7267	0.7738

Table 5 and 6 present the standardized canonical coefficients for the first two dimensions across both sets of variables. For the "policy coherence/effectiveness" variables, the first canonical dimension is most strongly influenced by the "transposition of community law". A noteworthy result from the table 5 is the negative relationship between the "new infringement cases" and the first canonical dimension.

For the "openness/participation" variables the first dimension was comprised of e-government on-line availability and e-government usage. The effect of voter turnout on the second canonical dimension is very small.

Table 7: Canonical Loadings for the Policy Coherence/Effectiveness Set

	1	2	3
newinfcase	-0.8747	-0.0320	0.4837
tracomlaw	0.9559	0.2640	0.1285
levelofconf	0.4366	0.8880	-0.1443

Table 8: Canonical Loadings For The Openness/Participation Set

	1	2	3
egovonlav	0.7088	-0.5586	0.4307
egovonusge	0.7887	0.3925	-0.4732
votturnout	0.0406	0.8930	0.4483

Table 7 and 8 reflect the canonical loadings for both sets. These loadings are correlations between variables and the canonical variates. According to table 7, the first variate has a high negative correlation with "new infringement cases" but a high positive correlation with "transposition of community law" and smaller but positive correlation with "level of citizens' confidence". Table 8 indicate that "e-government on-line availability" and "e-government usage" are highly correlated with the second variate.

Table 9: Correlation Between The Variables Of Policy Coherence/Effectiveness Set And Canonical Variates From Openness/Participation Set

	1	2	3
newinfcase	-0.7701	-0.0154	0.0911
tracomlaw	0.8416	0.1269	0.0242
levelofconf	-0.3844	0.4269	-.0272

Table 10: Correlation Between The Variables Of Openness/Participation Set And Canonical Variates From Policy Coherence/Effectiveness Set

	1	2	3
egovonlav	0.6240	-0.2686	0.0812
egovonusge	0.6944	0.1887	-0.0892
votturnout	0.0358	0.4293	0.0845

Table 9 and 10 reveal the canonical cross loadings, correlation between the variables of policy one set and canonical variates from the other set. According to table 9, "new infringement cases" are negatively, "transposition of community law" is positively correlated with the variate of "openness/participation" set.

Considering table 10, it can be clearly seen that both "e-government on-line availability" and "e-government usage" are positively correlated with the variate of "policy coherence/effectiveness". No substantial effect of voter turnout has been found.

5. CONCLUSION

The European Commision established the concept of good governance in the White Paper on European Governance, in which the term "European Governance" refers to the rules, processes and behaviour which affect the way in which powers are exercised at European level, regarding openness, participation, accountability, effectiveness and coherence.

In Eurostat's classification, the indicators of "policy coherence/effectiveness" set are the "new infringement cases", "transposition of community law" and "level of citizens' confidence in EU institutions". The indicators of the openness / participation set are the "e-government on-line availability", "e-government usage" and "voter turnout in national elections". The results of the canonical correlation analysis indicate a high positive relationship between these two sets. While interpreting the results of the canonical correlation analysis, coefficients of the canonical functions, canonical weights (standardized coefficients), canonical loadings and canonical cross loadings were analyzed. The results of these methods yield almost the same results.

In the variables of "policy coherence/effectiveness" set, "transposition of community law" positively contributes to the variate of the "policy coherence/effectiveness" set. It is also positively correlated with the same variate. By examining the cross loadings, the positive effect of this variable can be seen on the variate of the "openness / participation" set. Not surprisingly, negative effect of "new infringement cases" on both "policy coherence/effectiveness" set and the "openness / participation set" is observed. The variable of "level of citizens' confidence in EU institutions" has a positive relationship between "policy coherence/effectiveness" set but has a negative relationship between "openness / participation set". Considering the variables of the "openness / participation set", "e-government on-line availability" and "e-government usage" have the same impacts on both sets. No considerable effect of voter turnout on both sets has been found.

The results of this study suggest a positive relationship between the indicators of the good governance in European Union. Beside this main result, e-government becomes a very prominent factor on the indicators of good governance. Other noteworthy outcomes of this study are the positive significant effect of transposition of law and the negative effect of new infringement

cases. In the light of the evidence from these results, particular actions by the European Union states and institutions become necessary like supporting the policies which enhance participation and openness, stimulating e-government implementations and increasing transparency and coherence.

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