The contribution of institutional quality to lowering company compliance costs

Renata Slabe-Erker* and Maja Klun

1,2Institute for Economic Research Faculty of Administration, University of Ljubljana, Slovenia.

Accepted 12 December, 2011

This article addressed the contribution of quality to compliance costs in the work and procedures of employment and environment institutions, and its indirect contribution to productivity. Relations within two structural equation models were assessed using data collected on businesses in Slovenia. The study results, based on the structural equation modeling, indicated that public institution quality is negatively correlated with business compliance costs, and that the relation between compliance costs and productivity was also negative. The results showed that compliance costs are an important determinant of business productivity.

Key words: Institutional quality, compliance costs of regulation, productivity, structural model.

INTRODUCTION

Public policies, programs and measures influence individual and social welfare (Verbič and Slabe-Erker, 2008), as well as business and national competitiveness. Good regulation is essential for the effective functioning of the state, as well as for policy implementation. However, regulations that impose costs on individuals and businesses that could be reduced by simplifying procedures reduce social well-being.

Globally, businesses and individuals have faced the problem of regulation becoming increasingly complex over the last twenty years. Complicated procedures represent a significant financial burden on businesses and individuals. The costs imposed by the state not only include the taxes, fees or charges paid by businesses and individuals, but also indirect or hidden administrative costs. These administrative costs arise from actions to comply with regulatory requirements, including items such as employee time and payments for services to obtain licenses.

Public institutions are subject to change, usually as a consequence of economic reforms (Collins, 1993). This process has been particularly intense in the states of Central and Eastern Europe (CEE). In the field of regulation, countries without a long tradition of governance – new countries or countries in transition – are particularly exposed to the problem of low public institution quality (Aristovnik and Seljak, 2010). These results are lengthy, non-transparent and comprise complex procedures that unnecessarily burden the economy. The article also addresses the quality of public institutions and its impact on business operation, using Slovenia as a case study to examine the quality of public institutions as a challenge and an obstacle to development. General conclusions can be drawn for other countries and their institutional reforms.

High quality regulation and high quality operations by public institutions are an important element in the processes of globalization. However, it must be noted that effective institution-building in a globalized, dynamic environment can take decades, as institutional development is subject to a learning process (Weidner, 2002; Sonnenfeld and Mol, 2002; Dicken et al., 2001). Furthermore, it is understood that increasing transparency (broad discussions, public reporting) and democracy (more actors) leads to a very complex
administration system and, consequently, to a reduction in the effectiveness of public management, as it becomes harder to integrate all the related dimensions. However, this should only be the case in the short-term, while in the long-term the opposite should hold true (Siabe-Erker, 2003). This is the reason that improving the quality of public sector management and institutions should be carried out with precision and prudence. Institutions can be changed rapidly from the top by political leaders, but attempts of this kind can have negative consequences. In most cases, institutional change and improvements are gradual and also take into account the views of business (Easterly, 2008). It is of interest that institution-building is more affected by the ways in which people have codified the past than by how they envision the future (Hollingsworth, 2000). There is one further important point: institutions operate in both an economic and political environment and thus are subject to pressure from a wide variety of interest groups (Cok et al., 2009). An analysis based on survey data such as this can therefore provide useful support for selecting and applying measures appropriate to the very complex nature of institutions.

Institutional quality also influences the administrative obstacles that companies face. Regulation quality could be high, but low-quality public institutions can significantly reduce the advantages offered by such regulation. If public institutions do not produce work of high quality, and companies have to face lengthy, opaque and complex procedures, the ability of companies to function and adapt to the market will be further restricted. Furthermore, if companies work in the international market, a poor domestic institutional framework will place further limitations on their competitive position abroad. Therefore, governments face the challenge of how to cut red tape or compliance costs - by simplifying procedures, improving services, regulatory impact assessment (RIA) approach, etc. Before taking measures to cutting red tape, some preliminary research is required. However, companies might also cut these costs themselves. Muller and Supatigiat (2007) propose an approach to compliance management based on a quantitative, risk-based optimization model, which is designed to minimize expected total compliance costs.

This article discusses the issues of governance, that is, administrative practice and the institutional aspects of environmental protection and employment and their influence on company compliance costs. The research is based on a survey conducted in Slovenia under the Target Research Program ‘Slovenian Competitiveness 2006 to 2013’, which is the first comprehensive quality assessment of public institutions in this region. Business managers (international companies, small companies, companies with an environmental impact, etc.) assessed the quality and impact of administration and regulation on their operations. In this article, we present the results of testing two structural models of institutional quality and its influence on company efficiency - company compliance costs and level of productivity.

Most research (Garneu, 2009; Derr-Castglione, 2009; Tsung, 2008; Mazur, 2008; Deitz et al., 2009) indicates that better regulation contributes to lower compliance costs, but rare are studies of the influence of institutional quality on compliance costs. This gap will be reduced by our research. The results presented are particularly significant, because there has been no similar empirical study in this field before, and they provide new information of special importance. Indeed, no similar empirical study has been conducted even at international level.

THEORETICAL BACKGROUND, HYPOTHESES AND DEVELOPMENT OF THE CONCEPTUAL MODEL

Many issues in the field of institutional quality still remain unresolved. In particular, there is a lack of quantitative studies to confirm assumptions about institutional quality as a multidimensional factor, and its impact on companies. To reduce this gap, we developed, on the basis of the existing findings of international institutions and a review of other literature in the field of public effectiveness and public management, a conceptual model of institutional quality and its influence on company compliance costs; this is presented in Figure 1. We then present the main theoretical and empirical arguments for the role of institutional quality in company compliance costs, and develop a research hypothesis to explain the individual relations in the proposed model.

We focused on regulatory administration or institutions, and on compliance costs in two broad regulation areas: employment and the environment. Employment regulations include hiring and firing employees, complying with health and safety standards, workers’ rights, consulting with worker councils or unions, statistical reporting of employment-related data, administering employment-related or payroll taxes, social security and pensions, or mandatory employee benefits (that is, maternity leave, sick leave, etc.). Environmental regulations embrace licenses, planning and environmental impact assessments; complying with emission/discharge and hazardous substance requirements, process or product quality standards, pollution control and product regulations; environmental reporting and testing, record-keeping, and day-to-day administrative requirements related to the environment, such as environmental levies and taxes; eco-labeling of products or processes (OECD, 2001).

Dimensions of institutional quality

Measuring the quality of governance or institutions is difficult. Despite having numerous methodological weaknesses, rankings and indexes are commonly used
We are entering an era when interest in institutional indicators is increasing. Many international organizations, such as the World Bank (WB), the European Bank for Reconstruction and Development (EBRD), the Institute for Management Development (IMD), the World Economic Forum (WEF), the Organization for Economic Cooperation and Development (OECD), the European Environment Agency and others, have already developed their own systems of competitiveness or sustainability indicators, which include indicators for regulation and institutions. Some agencies have gone further and constructed aggregated indicators or indices for individual fields of competitiveness. To measure the quality of public sector management and institutions, WB and EBRD created the Business Environment and Enterprise Performance Survey (BEEPS); IMD developed the index of government efficiency, which includes the institutional environment and business-related regulations; WB developed the World Government Index (WGI), which includes an aggregated indicator score for ‘government effectiveness’ and ‘regulatory quality’; and WEF created the first pillar of the global competitiveness index - basic requirements, named simply Institutions. In 2008 and 2009, Slovenia was in 32nd place (out of 55) in the IMD ranking. Government efficiency scored worse, as Slovenia was in 43rd place in 2008, and at 38 in 2009, which means Slovenia is still in the bottom half of the ranking (IMD World Competitiveness Yearbook, 2009). In 2006, Slovenia was in 33rd place (out of 125) in the WEF global competitiveness index ranking; meanwhile, the ranking for pillar Institutions was worse, at 43. In the 2008 WGI ranking, Slovenia’s percentile rank was 82.9 for government effectiveness (Kaufmann et al., 2008). A comparison of results with the average findings for selected OECD countries indicates that, on average, Slovenian companies scored institutional quality lower in both areas. To some extent, such results are influenced by the fact that Slovenia is a relatively young country (founded in 1991), without a long tradition of institutions and, therefore, less experience in governance.

In general, approaches to governance vary from country to country; because regulated fields such as environment and employment meet numerous problems, instruments, economic agents, institutions, relations, preferences, cultures, etc (Sonnenfeld and Mol, 2002; Atkinson, 1991). Consequently, various dimensions of institutional quality are in the forefront in different countries. However, in spite of this diversity and dynamics, there is some similarity in regulation and institutional behavior in the process of globalization and Europeanization. When building an approach to governance, some common points arise from theoretical and empirical studies that are worth considering. The first is that democratic structures and procedures in all areas of society are key preconditions for effective public policy. Any strong and integrated policy requires strong capacities for the resolution of conflicts, innovation, integration and strategy building. The participation of numerous economic agents and increasing the number of instruments and procedures additionally complicates regulation (Weidner, 2002). According to Bourgon (2007), the reality of public administration today is determined by three factors: the need for flexibility; interactions between politics and policies; and new forms of accountability. Branson (2008) calls attention to the fact that various departments within institutions are currently working in complete isolation, so government needs to ensure that it takes a holistic approach to compliance issues. Some authors (Sonnenfeld and Mol, 2002; Andersen, 2002 and Dicken et al., 2001) rely upon an institutional approach to environmental governance and its transformation as
conditions in the environment change, physically and legally, such as in the case of adopting EU environmental legislation. The dynamics of various processes, new structures and interactions trigger conditions and accompany new forms of governance. As already mentioned, building effective institutions can take decades. The process of introducing modern instruments such as environmental reporting and planning, the precautionary principle, environmental taxes, and implementing active employment policy measures, etc, is subject to policy learning pressure (Weidner, 2002). Sonnenfeld and Mol (2002) also call the attention to the fact that the private sector is not merely an object of regulation, but also a partner in environmental regulation, an idea which applies to other regulated fields. They recommend studying changing environmental governance if economic sectors are regarded as important, a point also made by Dicken et al. (2001). These recommendations are also considered in our analysis.

Selecting relevant criteria for measuring institutional quality, corresponding to its dimensions, is not a straightforward matter. For example, Kaufmann et al. (2005) emphasize six dimensions of institutional quality: voice and accountability; political instability and violence; government effectiveness; regulatory quality; rule of law; and control of corruption. These indicators are contextual and measure institutional quality on the macro level, and can be obtained through published statistics. For our purposes, it is more appropriate to apply a definition provided by the OECD, which emphasizes six broad dimensions of the quality of regulatory administration: ease of access to the institution, clarity of procedures, accessibility of officials, and consistency of opinions provided, definitiveness of answers, and reasonable response time. Despite the various dimensions of institutional quality, in this study we assume that these dimensions have similar objectives. For this purpose, we formed the first hypothesis (H1) that institutional quality is a single multidimensional factor.

**Influence of institutional quality on company compliance costs**

Compliance costs for the private sector, according to the OECD (2001), are defined as “the formalities and paperwork that a business carries out, or pays someone to carry out on their behalf, to comply with tax, employment and environmental regulations. They include all the time and resources spent by owners, managers, staff or hired experts to understand regulations, collect, plan, process, report, retain data and fill in forms required by governments at all levels.” Most of these costs can be derived directly from the experience of representative enterprises - for example, through surveys such as the one discussed here. Compliance costs in the field of employment and the environment entail labor costs (employees handling evidence, registrations, statistical reports, administering sick leave and holidays and other activities related to employment or environmental regulation), external costs such as environmental auditing, as well as other internal non-labor costs (extra software and hardware, documents and stationery, postage and telephone, literature and seminars, court costs, etc).

Several studies evaluated the compliance costs of taxation (Sandford, 1995; Kaplow, 1998; Siemrod, 1998; Evans, 2003; Allers, 1994; Tiebel, 1992; Klun and Blažič, 2005), and found them to be relatively high and therefore not to be neglected. Studies of the compliance costs of other regulation are rare. Nevertheless, there are evaluations of compliance costs for the environment and employment regulation by the OECD (2001) and Chittenden et al. (2003). The conclusions of these studies are the same as for those of taxation.

The influences of different factors on compliance costs have been studied less. There are some papers on redundant regulation and how it imposes additional unnecessary compliance costs, but most refer to the banking sector (Garneu, 2009; Derr-Castiglione, 2009; Tsung, 2008; Mazur, 2008; Deitz et al., 2009). Even rarer are studies of the influence of institutional quality on compliance costs, although, this factor can be quite significant. Particularly in new countries, with no tradition, low institutional quality can be a major obstacle to business development. For instance, in the field of public energy management, Deitz et al. (2009) noted that for countries in South East Europe regulatory reform alone may not be sufficient for the adoption of the EU energy model, because the main problem remains the overall low performance of governing institutions.

Improving the quality of public institutions reduces company administration costs and the unproductive use of resources, leaving companies with more funds for investment and research, which increases competitiveness. Any unnecessary restrictions on company operations caused by formalities and regulations create undesirable obstacles to trade, innovation, investment and economic efficiency (Majcen et al., 2005). The OECD (2001) also draws attention to the fact that in a time of global operating agents and rapidly changing economic conditions, there is a danger that regulations and formalities hinder innovation or create needless barriers to economic efficiency.

To fully explore how institutional quality affects company compliance costs, we develop our second hypothesis (H2) that the quality of the competent institutions in the fields of employment and environment negatively influences company compliance costs in each field.

**Influence of company compliance costs on competitiveness**

According to European Commission assessments, compliance burdens in the EU account for 9% of gross...
domestic product (GDP), which reduces the competitiveness of the European economy. Reports by various international organizations assess the quality of public institutions as an increasingly important factor in economic competitiveness. This has also been recognized in recent research. Rauch and Evans (2000) quote some authors who found positive and significant effects of institutional quality and similar indexes on GDP per capita (Knack and Keefer, 1995 and Mauro, 1995). Likewise, many other authors (Easterly, 2009; Yandle et al., 2004) point out that high level of development correlates with an emphasis on institutional development. Moreover, companies and individuals prefer to locate their activities in countries where the public sector and its institutions are well-regulated, even in social environments which may impose sanctions (Guerek et al., 2006; Kosfeld et al., 2006; Gerber and Wichardt, 2009).

Furthermore, competitiveness has been the motivation behind public sector reforms in many transitional countries, while improvements in service delivery were a secondary objective (Verheijen and Dobrolyubova, 2007). In their research into reform processes, Yakovlev and Zhuravskaya (2006) found that deregulation has had a major impact on economic development, particularly for small enterprises. They also found that procedural transparency is an important factor in the effectiveness of deregulation. On the other hand, in most developed countries, public management reforms lead to performance measurements, cost reduction and quality improvement (Pollitt and Bouckaert, 1995, 2004; Denhardt and Denhardt, 2003; Frederickson, 1996).

With regard to hypothesis H2 on the impact of institutional quality on compliance costs and the lack of quantitative evidence of the indirect impact of institutional quality on competitiveness, we formed a third hypothesis. Hypothesis H3 broadly concerns the relationship between compliance costs and competitiveness, although the ultimate dependent variable is narrower. H3 is: Company compliance costs negatively influence productivity.

DATA AND METHODOLOGY

This section deals with sampling and data collection, data analysis, testing the model and operationalization with a measurement instrument. Data for our research were collected within the Research project conducted under the Target Research Program ‘Slovenian Competitiveness 2006-2013’. The methodology for the survey is based on a survey using the 1998 OECD survey of eleven countries as a model. The second model was the European Commission’s ‘European Tax Survey’ carried out in fourteen EU member states in 2003. The survey was carried out in Slovenia in the first half of 2007, and the data and calculations therefore relate to the 2006 financial year.

Of course, the business survey approach has methodological shortcomings. Firstly, respondents are in general inclined to complain and criticize, especially when experiencing poor company performance, although this behavior can also be influenced by culture. Additionally, they behave strategically, that is, they overestimate the time and effort required for a certain procedure.

On the other hand, some respondents may underestimate their opinion, because they are unfamiliar with the formalities and procedures. It is important to bear in mind that the data collected reflect business perceptions, not statistical measurements. Therefore, the construction of the questionnaire is a very important stage in the survey, since a well-prepared questionnaire can help reduce bias.

The questionnaire contains questions to determine perceptions of institutional quality in the relevant area. Although, the respondents could select the ‘don’t know’ option, these responses are eliminated from further analysis.

The questionnaire was tested on a group of companies, and subsequently reorganized to simplify and improve the comprehensibility of the questions. The survey was conducted in Slovenia from February to June 2007. The sample included 223 companies randomly selected from the Slovenian Business Directory. The validity of the sample in terms of the whole population was tested, particularly regarding characteristics of significance in assessing quality in both areas. The sample therefore took into account the breakdown of company size, and the proportion of businesses that either perform an environmental activity (for example, recycling) or are classed as polluters. The survey was carried out by personal interview, which is the most common and usually the most effective method of surveying, but also the most expensive. The high response rate to this approach was once again confirmed, with 266 valid questionnaires returned. The sample was representative in terms of company size, with 97% being small, 2.35% medium-sized, and 0.65% large enterprises, which matches the ratio for the general population. The population coverage was 0.6%.

As mentioned earlier, one group of questions in the survey addresses institutional quality. The construct of institutional quality was measured via six items/questions. On these questions we first performed an exploratory factor analysis with maximum likelihood extraction technique, without rotation. For the factor analysis it is first necessary to determine with Bartlett's sphericity test and Kaiser_Meyer-Olkin (KMO) test, whether the data are generally suitable for its implementation (Craig and Douglas, 2005).

These procedures were conducted using SPSS version 16. Then we use the AMOS modul of SPSS to perform confirmatory factor and regression analysis as well as to test the structural model of institutional quality and its influence on company compliance costs and indirectly on productivity. Since a minor deviation from normality was found in the data, we used a maximum likelihood estimation method (ML) (Bollen, 1989). As recommended and used by several scholars (Shook et al., 2004; Antonic and Prodan, 2008; Murovec and Prodan, 2009), the fit of the model was assessed with multiple, commonly used indices: CMIN/df, NFI, CFI and RMSEA.

Turning to the operationalization of variables included in the hypotheses: institutional quality, compliance costs and productivity, the independent variable institutional quality is measured indirectly. In order to ensure better reliability and validity of measurement, we created a construct consisting of several variables/items. According to the OECD definition, the quality of institutions in each of the two administrative fields is measured with six exogenous variables or indicators. The respondents were offered five levels of agreement or disagreement, ranging from ‘strongly disagree’ to ‘strongly agree’ with the six statements, which are relevant to our six variables measuring the construct institutional quality: clear authorized institutions (Q1); ease of contacting (Q2); consistency of opinions (Q3); definitiveness of answers (Q4); reasonable respond time (Q5); clarity of procedures (Q6). The quality of institutions in the field of the environment was measured with only five variables, since there are not enough data for Q2.

In order to determine the factorial structure of the construct institutional quality, we performed an exploratory factor analysis. First, we have to determine whether such data are generally adequate to perform a factor analysis. For this purpose, we used Bartlett's sphericity test and the KMO test. The KMO measure of
sample adequacy for the factor analysis is 0.868 for employment and 0.762 for the environment. The data are therefore adequate for a factor analysis. Bartlett’s sphericity test was significant in both cases, which suggests that most of the correlations within the correlation matrix are statistically significant.

It is evident that a single factor is sufficient to explain the common variance of 62.6% of the six items in the field of employment regulation and that the explained variance of a single factor in the field of environment is 59.5%. The exploratory factor analysis for both regulation fields showed that variable institutional quality is a single multidimensional construct. All variables are load on one factor. Factor loadings for all variables are shown in Table 1.

Cronbach’s alpha of 0.876 in the environmental field and of 0.905 in the field of employment indicates a strong internal consistency of the indicators operationalized to measure the construct of the quality of institutions.

Dependent variable compliance costs are defined as arising from the formalities and paperwork that a company carries out, or pays someone to carry out on their behalf to comply with employment and environmental regulations. They include the time and resources spent by owners, managers, staff or hired experts to understand regulations, collect, plan, process, report, retain data and fill in forms required by governments at all levels. Compliance costs are measured as a percentage of total administration costs.

The ultimate dependent variable is productivity. Productivity is defined as a company’s turnover per employee divided by turnover per employee in a given branch of the company.

RESULTS AND DISCUSSION

The structural equation model was developed to explain the influence of the quality of competent institutions on company compliance costs in each of the two administrative fields, where the ultimate dependent variable, productivity, is predicted by compliance costs.

We assume that improving the quality of public institutions reduces company compliance costs and the unproductive use of resources, leaving companies with more funds for investment and research, which increases competitiveness. Our second and third hypotheses are that the quality of public institutions negatively influences company compliance costs, and that the relation between compliance costs and productivity is also negative. We focused on two regulation areas: employment and environmental regulation. The results presented in Figure 2 and 3, or path diagrams, provide support for the hypothesis 2 that the quality of competent institutions has a significant, negative and relatively high regression coefficient of -0.60 in the field of employment, and -0.58 in the field of environment. This means that when the quality of institutions rises by 1 standard deviation, company compliance costs fall by a 0.60 standard deviation in the field of employment, and by a 0.58 standard deviation in the field of the environment.

The structural relationships in the two models presented in Figure 2 and 3 referring to the influence of the quality of institutions on company compliance costs were estimated using the maximum likelihood method. Measures of fit indicate a good model fit. For the employment model the measures are as follows: CMIN/df = 0.527, NFI = 0.984, CFI = 1.000 and RMSEA = 0.000. For the environment model, the model’s measures of fitness indices are: CMIN/df = 0.281, NFI = 0.980, CFI = 1.000 and RMSEA = 0.000. The variance explained for company compliance costs in the field of the environment is 24%, and 36% in the field of employment.

Moreover, the results of the research show that compliance costs in the field of employment are an important determinant of company productivity, as it explains 30% of variance in productivity. In the field of the environment, compliance costs are less important for productivity, as they explain only 7% of variance in productivity. Our hypothesis 3 supposes that the relation between compliance costs and productivity is negative. Statistically significant and negative standardized coefficients - 0.55 in the field of employment, and -0.26 in the field of environment, further support our hypothesis.

Within the metric part of the model, we included six items from the questionnaire which measure institutional quality. In the field of employment, model testing on the sample confirmed the positive statistically significant relation of institutional quality, and Q5 - reasonable response time (standardized coefficient = 0.85); Q3 - the consistency of opinions provided (standardized coefficient = 0.81); Q1 - clearly authorized institutions (standardized coefficient = 0.87); Q4 - receiving definitive answers (standardized coefficient = 0.87); Q2 - ease of contacting the institution (standardized coefficient = 0.78);
Q6 - clarity of procedures (standardized coefficient = 0.70). It is estimated that the predictor of Q1 - clear authorized institutions - explains 76% of its variance; the same holds for Q4 - receiving definitive answers. Other predictors explain 49 to 64% of their variance. The results of the metric model – confirmatory factor analysis – confirm our first hypothesis, so we can affirm that institutional quality in the field of employment is a single multidimensional factor.

In the field of the environment, testing on the sample confirmed the positive statistically significant relation of institutional quality, and Q5 - reasonable response time (standardized coefficient = 0.85); Q6 - clarity of procedures (standardized coefficient = 0.79); Q4 - receiving definitive answers (standardized coefficient = 0.76); Q1 - clear authorized institutions (standardized coefficient = 0.64).
of variance in productivity. In the field of the environment, determinant of company productivity, as it explains 30% materials, capital, education and skills of the labor force, determine productivity levels, such as labor supply, raw course, there are many other factors which can they explain only 7% of variance in productivity. Of costs in the field of employment are an important regulation areas: employment and the environment. The institutions, as well as compliance costs in two broad

Conclusions

In this article, we focused on regulatory administration or institutions, as well as compliance costs in two broad regulation areas: employment and the environment. The issue of the quality of institutions in new EU member states relates above all to the introduction of new regulations, to which not only companies, but also institutions are still adapting. Although, the interest of governments in reducing compliance costs is growing, research in this field is still rare. In this article, we attempt to present the key findings and results of related studies. A review of the relevant literature shows that no similar empirical study in this field has been done before. In addition to its theoretical value, the article contains some methodological value, as it measures institutional quality rather more directly and as a construct of more variables than in most other studies. In general, we can assume that this analysis, taken together with other assessments of regulatory quality, could be of great value in policy-making.

REFERENCES


into taxation operating costs. eJITaxR, 1(1): 64-92.