

# GOOD LAW AND POLICY-MAKING: A PREREQUISITE FOR COMPETITIVE INNOVATION STRATEGIES?

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## Abstract

The contemporary environment requires policy-makers to act responsible. However, in existing literature, there is no explicit agreement on which aspects of institutional environment, including common law are more important than others for a country's prosperity, economic growth, entrepreneurship, or innovativeness. Therefore, the paper aims to reveal whether fair, transparent and effective policy-making fosters the emergence of competitive strategies for innovation, or instead limits the range of commonly-acceptable means of fair and legal competition. The empirical research covers 60 innovation variables across 127.674 organizations, 12 core and 19 additional industrial sectors, 16 European economies and 368 institutional variables, thus pointing to the impressive scope of the research. What makes the paper original is its focus on the responsible policy-making as a contributor to competitive practices for innovation.

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**Keywords:** Innovation strategy, institutions, policy-making

## Introduction

As Fagerberg et al. (2009, p. 432) state: "At any point in time many new ideas emerge, but only those that are well adapted to the contemporary selection environment are likely to be applied and form the basis for continuing adaptation and improvement." The 'contemporary selection environment' requires policy-makers to act responsible, i.e. in a transparent and fair way. However, existing literature does not provide sufficiently clear answers to the question whether such policy-making fosters entrepreneurship and innovativeness. It is sometimes stated that the rule of law tends to limit innovativeness, commercialization, etc. due its inflexibility and inability to adapt to the modern dynamic business environment.

Therefore, the paper aims to reveal which institutional factors – both based on law and order, and common law – foster the emergence of competitive strategies for innovation. In broad terms, the competitiveness can be defined as a firm's capacity to manage its resources or gain access to the new ones so that the firm, more rapidly than its competitors, could deliver goods and services containing exclusive features and meeting the expectations of the customers, given the proper evaluation of the firm's internal and external environment, and respective transparent, fair and effective actions. Hence, the essence of fairness and obedience to law is embedded in the very definition of competitiveness, but it is still not clear whether fairness, transparency, etc. really foster innovation or simply limit the range of commonly-acceptable competitive spirit.

## Theoretical Background

The major problem of not being able to prove the positive impact of law on innovation is the variety of opinions about the relationship between institutions, policy-

making, law and innovations. Different scholars indicate different aspects of policy-making as prerequisites for successful innovation. Hence, Paus (2012) shows that *strategic, proactive and coherent government policies* for organizational capability advancement are a key determinant of upgrading in open economies, such as Chile, the Dominican Republic, Jordan, Ireland or Singapore. Varieties of capitalism approach distinguishes the management of *financial and industrial relations, education and training, and intercompany systems* as the institutions that form either a liberal market economy or a coordinated market economy and foster, respectively, either radical or incremental innovations (Casper 2009). Similarly, Freeman and Soete (1997) state that environments with dominating *technical and economic demands* favor effectiveness, novelty, radical innovations, whereas environments with dominating *social demands* favor values, rules, trust and incremental innovations. Then, Dau (2013) claims that *institutional coordination* of the *economic learning* plays a central role in fostering rates of innovativeness and competitiveness of the largest Latin American companies. He investigated 500 companies from 1989 to 2008 that acquired market knowledge abroad and used it when responding to reforms at home, thus gaining a first-mover advantage over other local organizations. Next, Eapen (2012) states that the ability of domestic enterprises to *absorb new knowledge* depends on the *social structure* in which they are embedded.

So, how many aspects of innovation-related policy-making can we distinguish? In fact, the list based on the theoretical insights is hardly definite (Stankevice, Jucevicius 2013). Therefore, first, it is necessary to test the relationships between innovation strategies and elements of institutional environment empirically. And second, it is necessary to define whether the institutional elements that have the strongest impact on the most competitive innovation strategies incorporate the dimensions of responsibility, fairness, effectiveness and transparency.

## Methodology

Both innovation strategies and institutional factors were identified by EFA. The input variables were borrowed from CIS8 microdata<sup>50</sup> and the Institutional Profiles Database III. Then, innovations and institutions were interrelated via regression analysis.

Based on the standardized coefficients of the regression models, the following comparative values of the impact of the institutional factors on innovation strategies were produced:

- non-directional general impact = |sum of values|;
- directional general impact = sum of values;
- non-directional relational impact = |sum of values| / number of related innovation strategies;
- directional relational impact = sum of values / number of related innovation strategies;
- non-directional impact per strategy = |sum of values| / number of all the innovation strategies; and
- directional impact per innovation strategy = sum of values / number of all the innovation strategies.

Finally, the informed institutional factors were made subject to logical analysis in order to identify whether they incorporated the aspects of responsibility, and, if yes, what kind of responsibility (i.e. ecological, social, financial, etc.).

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<sup>50</sup> European Commission, Eurostat, 2008 Community Innovation Survey microdata. Eurostat takes no responsibility for the results and conclusions, which are those of the author of the paper.

**Empirical Results**

Six innovation strategies were distinguished. They are described in detail in my previous works (Stankevice 2013; Stankevice 2014a, Stankevice 2014b), and the results are strongly supported by the findings of other scholars (Battisti, Stoneman 2010; Filippetti 2011; Paananen 2012; Bettencourt, Brown 2013; Drechsler et al. 2013; Trigo 2013).

Interestingly, some of the identified innovation strategies tend to emerge in contexts with lower education quality, too loose prudential and labor regulations, low support for large labor formations, governments that are not capable to properly communicate and implement the countries’ long-term visions, etc. On the contrary, some other innovation strategies require high quality of institutional factors inducing them. Typically, they are the strategies implemented by the best-performing firms. Table 1 describes the direction and intensity of the impact of the institutional factors on the emerged innovation strategies.

Table 1. Standardized coefficients: the impact of institutional factors on innovation strategies

	IS-1	IS-2	IS-3	IS-4	IS-5	IS-6
Government’s capacity to implement its long-term vision	1.169					-0.296
Efficiency of institutional cooperation		0.567				0.262
Extent of the privatization of large non-financial firms			-0.661			-0.354
Level of support for large labor formations			-0.291	-1.200	-0.167	
Efficiency of mining resources usage for R&D	-0.532				0.996	
Tightness of prudential and labor regulations		-0.253		0.385	0.280	-0.752
Efficiency of the rule of law		0.345				
Extent of the transparency of capital and labor markets	0.326	0.379		0.276		
Practical quality of education		-0.407	-0.176		-0.358	0.216
Quality of the free operation of the capital market			-0.291		0.156	

Legend: IS-1: semi-open, knowledge-intensive leadership; IS-2: expansive, marketing-intensive leadership; IS-3: product marketing- & scale-based innovating; IS-4: process- & cost-oriented incremental innovating; IS-5: transformative, strategic innovating; IS-6: responsive, service-oriented innovating.

Based on the standardized coefficients of the regression models, the comparative values of the impact of the institutional factors on innovation strategies were produced. They are presented in Table 2.

Table 2. Comparative values of the impact of the institutional factors on innovation strategies

	No. of related innovation strategies	Non-directional impact	Directional impact	Non-directional relational impact	Directional relational impact
Government's capacity to implement its long-term vision	2	1.465	0.873	0.733	0.437
Efficiency of institutional cooperation	2	0.829	0.829	0.415	0.415
Privatization of large non-financial firms	2	1.015	-1.015	0.508	-0.508
Level of support for large labor formations	3	1.658	1.342	0.553	0.447
Efficiency of mining resources usage for R&D	2	1.528	0.464	0.764	0.232
Tightness of prudential and labor regulations	4	1.670	3.660	0.418	0.915
Efficiency of the rule of law	1	0.345	0.345	0.345	0.345
Extent of transparency of capital and labor markets	3	0.981	0.981	0.327	0.327
Practical quality of education	4	1.157	3.275	0.289	0.819
Quality of the free operation of capital market	2	0.447	-0.135	0.224	-0.068

Concerning the values of non-directional general impact of institutional factors on innovation strategies, one can note that tightness of prudential and labor regulations and level of support for large labor formations have the greatest values ( $> 1.6$ ). However, the impact of support for large labor formations is totally negative, thus meaning that the related innovation strategies (i.e.: product marketing- & scale-based innovating; process- & cost-oriented incremental innovating; transformative, strategic innovating) tend to emerge in institutional environments not supportive of trade unions, employees' associations, professional associations, etc. Besides, these strategies are medium and less competitive. Similarly, tightness of prudential and labor regulations is associated with four innovation strategies, but the positive impact can only be observed in case of two medium-competitive strategies (i.e.: process- & cost-oriented incremental innovating; transformative, strategic innovating), and the impact is rather small. Otherwise, the negative impact is mostly associated with responsive, service-oriented innovating and, to a smaller extent, with expansive, marketing-intensive leadership.

Contrarily, the evaluation of the directional general impact shows that extent of the transparency of capital and labor markets, government's capacity to implement its long-term vision, and efficiency of institutional cooperation have the greatest values ( $> 0.8$ ). Besides, positive impact is mostly associated with the most competitive innovation strategies, i.e. semi-open, knowledge-intensive leadership and expansive, marketing-intensive leadership.

If to measure the impact of institutional factors on innovation strategies in non-directional relational values, efficiency of mining resources usage for R&D and government's capacity to implement its long-term vision could be noted ( $> 0.7$ ). The directional relational measures point to government's capacity to implement its long-term vision and efficiency of institutional cooperation ( $> 0.4$ ), followed by efficiency of the rule of law and extent of the transparency of capital and labor markets ( $> 0.3$ ).

Interestingly, one can draw a parallel between the regression equations and competitiveness of the assessed innovation strategies. Thus, the equations constructed for the

most competitive innovation strategies, i.e. semi-open, knowledge-intensive leadership and expansive, marketing-intensive leadership, include mostly positive signs for the institutional variables. This finding implies that more advantaged institutional profiles condition the emergence of the strategies of this kind.

Then, in the equations of the medium-competitive innovation strategies, i.e. transformative innovating and process- & cost-oriented incremental innovating, the impact of positive predictors is varied: the transformative & strategic innovating is mostly positively influenced by the institutional factors, whereas the lack of support for large labor formations strongly contributes to the emergence of the process- & cost-oriented incremental innovating.

Finally, the most negative equations are those of the less competitive innovation strategies – responsive, service-oriented innovating and product marketing- & scale-based follower. Hence, these two strategies are prone to emerge in countries with the lowest average quality of institutions. At the same time, these strategies are considered to be the least competitive.

### **Institutions and Innovations – What Matters?**

To summarize the presented empirical results, four institutional factors have to be discussed in more detail.

*Transparent capital and labor markets* include such institutional qualities as the freedom of association, independent labor inspectorate, promotion by merit, good functioning of labor–management dialogue both within firms and at the national level, publication requirement for firms issuing shares, and the existence of arrangements to combat restrictive collective agreements (i.e. cartels). What unites the innovation strategies that are positively related to the given institutional factor is the need for transparent collaboration in order to either receive funding from the EU or acquire new knowledge or organize external relations, including those with government, public research institutes and higher education institutions, i.e. the need for several actors to work together along the value chain. Hence, if labor and capital markets are not transparent enough, it becomes much more difficult to build reliable external relationships and to cooperate on a more tangible basis than simply working under a paradigm of blind trust. Moreover, high standards of transparency attract global investors, thus enabling technology transfer and learning and, consequently, fostering innovation.

Transparency is closely related to the *efficient implementation of the rule of law*. This institutional factor includes respect for contracts between local private players and foreigners, setting up a foreign business subsidiary at ease, no or few administrative barriers to market entry for new firms, low percentage of land disputes and a high capability of ruling classes in driving the society to take up major domestic or external challenges. The content of the institutional factor has much in common with the most competitive innovation strategies. In general, the factor represents not only transparent, but also highly dynamic economy that tends to generate just as dynamic and change-oriented businesses and societies. Hence, the innovation strategies are aimed at entering new markets and include the development and realization of new-to-market innovations. Moreover, they may include innovation in marketing or business strategy, and therefore, require some degree of creativity that could be viewed as a consequence of the economy’s dynamics and openness to new market players and ingenious ideas.

Admittedly, a dynamic economy necessitates *efficient institutional cooperation and coordination*. This institutional factor includes efficient court rulings in commercial matters, efficient bankruptcy law, low young graduates’ unemployment rate, efficient arrangements to encourage technology and skills transfers from foreign players to domestic ones, and close cooperation between ministries as well as between national authorities and local stakeholders. The very inclusion of the young graduates into the labor market demonstrates the right

direction of the labor market at its initial stage when the graduates' and employers' expectations match. Besides, the coordination in policy-making has widely been acknowledged as an important precondition for strengthening knowledge management and innovation capacities at both national and regional level.

Ultimately, efficient institutional cooperation and coordination are hardly imaginable without clear, purposeful and consistent guidelines. Therefore, the *government's capacity to implement the country's long-term vision* is crucial for the most competitive innovation strategies. This institutional factor includes the strong vision of the international or regional integration strategy, strong long-term strategy for the development of human capital, high government's capacity to motivate public and private stakeholders to work towards the long-term strategic vision (e.g. via fiscal, financial, commercial and regulatory incentives), the education system that is well associated with the long-term vision of skills requirements in the country, transparent economic policy, freedom of assembly and demonstration, and low level of large-scale corruption between administrations and foreign firms. Hence, the well externalized vision and adequate mix of instruments towards its successful implementation create routines that have to be followed, thus confining all the players to a definite logic which it could be difficult to escape.

## Conclusion

Whenever one thinks of both the high quality of institutional performance and rather sophisticated innovation strategies, a more deliberate intent is needed to foster certain innovation strategies by means of policy-making. Therefore, it is important to note that *transparent capital and labor markets, efficient institutional cooperation and coordination and rule of law* contribute to the emergence and successful performance of the most competitive innovation strategies to the greatest extent. The aforementioned parameters are lead by the government capable of implementation and clear communication of the country's *long term vision*, as well as strong tangible and moral motivation for realizing the vision, i.e. the government's ability to consolidate business, science, political and legal elite, and broader society.

The systemic interplay of the informed institutional factors results in a sophisticated, transparent and dynamic economy that fosters innovation. Hence, responsible policy-making is truly important for successful organizational strategies for innovation. The lack of overall legal and practical responsibility for labor and capital markets, as well as for efficient and transparent institutions, hinders firms from embarking on more competitive innovation strategies and pushes them into less efficient innovation loop.

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