

## Evaluating Research Productivity in Economics in Poland: A case of a leading private business school

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### **Abstract:**

The aim of this paper is to present procedural solutions used in Poland to measure and evaluate research productivity in economics and then to remunerate researchers for their creativity, time and effort invested in conducting scientific research. Economics is sometimes defined as a science “of the least effort”. This should be interpreted as a tendency to achieve the highest possible efficiency by rearranging alterable elements to minimize costs or to maximize results. Although we should engage in scientific research from our will to discover the truth, some additional aspects may hinder or stimulate our activity in this dimension. The solutions implemented to measure productivity of research in economics are serving often in motivation systems at research-oriented institutions. Our experience originates from a leading private institution of higher education in Poland, the Wyższa Szkoła Biznesu-National Louis University in Nowy Sącz. I present the methods for measuring productivity and then offer a discussion about short- and long-term consequences of all advantages and disadvantages that we are able to recognize. The results show that with initial thresholds quantity was more stimulated, rather than quality of the research (and the subsequent publications).

**Keywords:** research productivity, Economics, motivation system.

**JEL Classification:** Z00, M59.

### **Introduction**

Why do we conduct scientific research? This is a question of no small importance for the whole history of mankind. There were dark times when scientific research was not serving humanity. Toxic gases used in the battlefields of the World War I and concentration camps by Nazis, used to eradicate whole nations, are examples of implementation of scientific research for evil purposes. Economics is not neutral and it

also has a potential for being used against Earthlings. Therefore, an issue of high importance is the proper motivation for research and the good implementation of its results to increase the prosperity of us all.

The paper discusses the phenomenon of a private business school that made a remarkable and unprecedented leap, becoming a leader in Central Europe in business education and a domestic leader in economic research. The former may be attributed to original and flexible curricula, adjusted according to the most recent developments and US standards. Achievements in economic research might, on the other hand, be a result of an absolute advantage over the competitors in terms of advancements in IT technologies available for faculty members. As argued by Ding et al. (2009), this factor has a statistically significant influence through the channel of knowledge diffusion. Evidence of a positive IT-productivity relationship is also reported in Kaminer and Braunstein (1998), Walsh, Kucker and Gabby (2000), and Barjak (2006). Using the same nomenclature, as in Ding et al. (2009), however, the WSB-National Louis University would be classified as a mid-to-lower tier institution due to the ultimate influence of IT on research productivity and its quality.

### **Polish Research Productivity Evaluation**

The WSB-National Louis University (WSB-NLU) in Nowy Sącz in Poland was for several years, after the economic transformation, the leader among private institutions of higher education. Under the lead of Rector Dr Krzysztof Pawłowski it was setting domestic standards in both academic and research affairs. During the golden age of this university (1996-2006) Professor Dr hab. Marek Capiński, Rector for Scientific Affairs, designed and implemented a consistent system for motivating faculty members to conduct scientific research.

The aim of the system was clearly defined and easily understandable. The WSB-NLU was then the leader in business education. The ambition of the Rector was to make the WSB-NLU the leader also in scientific research. The task was a difficult one due to several factors. The WSB-NLU was a new establishment. Compared with many old universities (Jagiellonian University in Cracow) and many universities of Economics that had human resources and capital accumulated over centuries and decades it had basically

no history. It was located far from big cities which made acquisition of productive researchers more difficult. Facilities offered on-site (like the library) were far below domestic and global standards. These problems were overcome due to a brilliant motivation system. The high efficiency of the system allowed the WSB-NLU to be classified in 2006 by the Ministry of Science and Higher Education among the top research institutions.

The productivity measurement and bonus system at the WSB-NLU was brilliant due to its simplicity, clearly defined procedures leaving nothing to discretionary decisions and a short response time. Assumptions of the system were as follows. Every faculty member was supposed to teach and conduct scientific research and these were two of the three dimensions of the general employee evaluation for general bonuses. The third was university-oriented administrative and other support. The assessment system of productivity in economics was associated solely with the results of research efforts taking the form of published works.

### ***Design of the system to measure productivity***

The system of measuring productivity in economics was a continuous one. There were no deadlines for submitting information about publications and reporting them was not obligatory. For a publication to be considered as a subject of assessment at the WSB-NLU it had to be affiliated properly. It is a standard in academia that so called “credits” are provided either at the beginning or at the end of a published work. These “credits” had to state clearly that the author or at least one of co-authors is a full-time faculty member at the WSB-NLU. All publications meeting this formal requirement could become the subject of scoring.

Scoring of submitted publications was based on an official, ministerial decision concerning the scientific quality of domestic and foreign journals and other forms of scientific publications, such as books and edited works. There is a list of titles of domestic and foreign journals with a score, in points, for each item. The number of points reflect the perceived quality of a journal or other forms of publication. The ministerial list is updated to keep up with developments and journals move upwards and downwards in line with the changes in their overall quality. The criteria used in this Ministerial process are

not revealed to the general public. Polish academia, however, accepts any changes and there is a nation-wide consensus about these updates.

The Rector for Scientific Affairs at the WSB-NLU introduced a “pricelist” for the purpose of calculating publication bonuses based on the externally decided score. Points for domestic journals were priced below the price for foreign journals. The price of points associated with a book of a sole author was the third category in the pricelist with a special price for books published internationally. These differences were meant to encourage publishing in foreign journals and books in English to receive broad coverage and international recognition of results as much as possible. The highest price was reserved for publications in top foreign journals with the highest impact factor.

**Table 1. Prices of points for different categories of publications at the WSB-NLU.**

<b>Publication</b>	<b>Number of points</b>	<b>Price of one point</b>	<b>Total bonus in PLN</b>	<b>Total bonus in USD</b>
Domestic journal B-class	4	300 PLN	1 200 PLN	300 USD
Domestic journal A –class	6	300 PLN	1 800 PLN	450 USD
Domestically published book	15	300 PLN	4 500 PLN	1 125 USD
Internationally published book	15	600 PLN	9 000 PLN	2 250 USD
Chapter in a domestic book	4	300 PLN	1 200 PLN	300 USD
Chapter in a foreign book	4	600 PLN	2 400 PLN	600 USD
Top foreign journal (high impact factor)	12	1000 PLN	12 000 PLN	3 000 USD

Source: Decision of the Rector for Scientific Affairs of the WSB-NLU.

As can be seen from table 1, the bonuses were substantial and they may have been a significant driving force for increasing productivity in scientific research.

***Roles for decision makers of the system to measure productivity***

The main player in the system that was responsible for its operations was the Rector for Scientific Affairs. He set the prices for publications' points. Although every publication was studied by the Rector prior to deciding bonuses, his judgement did not play any role in granting bonuses. This makes the system resistant to abuse and corruption. The most important element of the system (the list of journals with associated quality-score) came from outside the university (from the Ministry of Science and Higher Education), which made it fully independent and objective.

***Procedure of the measuring productivity system***

In order to understand the system, it is reasonable to go through the procedure step-by-step with explanations of every phase. At the beginning there is an Author of a piece of scientific research who is presenting his or her results in the form of a publication. From the day of publication in any of the accepted forms (a journal paper, a book, a chapter in an edited book) the Author is allowed to present a special package to the Rector for Scientific Affairs. This package is supposed to deliver crucial information about the content and form of the publication. The package differs according to the form of publication. The requirements in this regard are presented in table 2.

**Table 2. Submission package requirements at the WSB-NLU.**

<b>Carbon copy of:</b>	<b>Journal paper</b>	<b>A book</b>	<b>Chapter in a book</b>
full text	<b>X</b>		<b>X</b>
cover	<b>X</b>	<b>X</b>	<b>X</b>
title page		<b>X</b>	
table of contents	<b>X</b>	<b>X</b>	<b>X</b>

Source: Decision of the Rector for Scientific Affairs of the WSB-NLU.

The package should contain only carbon copies of the required parts of the publication and no cover letter – to make submission as easy and cost effective as possible. The package should be delivered to the office of the Rector for Scientific Affairs by leaving it in an appropriate in-box at the general office located in a convenient venue.

There are no time or date requirements concerning the submission. Authors are not obligated to submit packages, but due to institutional benefits for the WSB-NLU, they are encouraged to reveal their publications to the Rector for Scientific Affairs and earn associated bonuses.

The rest of the procedure is conducted by the Rector for Scientific Affairs. The Rector, when he receives the submission package, conducts a check of validity and completeness of the package. Then he signs his decision about the number of points associated with the publication. However, there is no personal discretion in this “decision”, because it is based on the official Ministerial list of quality-scores for publications. Then it was time to sign a document, in which calculation of a bonus is included. This is the basis for paying out the bonus to the successful Author.

The Rector for Scientific Affairs kept records of all publications presented by faculty members. This information was then used for the annual ranking of scientific effort at the WSB-NLU. During the Faculty Meeting prior to each new academic year, individual statistics on scientific productivity are presented with one winner – the person who earned the highest number of publication quality-score points. During this event some honorary (non-monetary) prizes are awarded jointly for quality and productivity in scientific research. These prizes were often in the form of an elegant pen or other writing equipment.

### ***Special solutions under the system***

The system for measuring productivity in economics at the WSB-NLU was engaged for another purpose, other than motivating research. The teaching load for every faculty member is defined by the number of “credits” or equivalent hours of lectures to be taught. In case of the WSB-NLU the teaching load was defined in terms of hours of discussion sections and lectures. The productivity measurement system allowed for a special solution for persons with high research propensity. Instead of a regular teaching load, a faculty member could negotiate an agreement to substitute some (or all) of the teaching load with points earned for publications. It was easy to calculate the exchange rate between one hour of academic activity (lecturing) and points for different types of publications. For each position, from a Reader, through Assistant Professor, Associate Professor and Full

Professor, the teaching load was precisely defined. Each faculty member was receiving a core salary appropriate for each position, that when divided by the teaching load (in hours) delivered the hourly rate. Now an exchange was taking place. Those who were willing to do it, were substituting teaching with research productivity. An example for an Associate Professor should be informative enough to understand this specific solution (table 3).

**Table 3. Example of an Associate Professor substituting teaching with scientific research.**

Position	Teaching load	Yearly salary	Hourly rate
Associate Professor	270 h (annually)	27 000 PLN	100PLN/h
<b>Equivalent of publications in hours of teaching</b>			
Domestic journal B-class	12 h		
Domestic journal A –class	18 h		
Domestically published book	45 h		
Internationally published book	90 h		
Chapter in a domestic book	12 h		
Chapter in a foreign book	24 h		
Top foreign journal (high impact factor)	120 h		

Source: Author.

This solution was intended to allow the most brilliant and productive faculty members to focus partly or entirely on scientific research activities, decrease their teaching load, and still receive the full, regular salary. For those who negotiated this substitution of teaching with publications no additional publication bonuses were granted, of course.

#### **The shadow and the flame – short- and long-term consequences**

Several questions arise: (1) were there any problems with the described system? (2) Did it have any disadvantages for the university or for faculty members or for anyone else? (3) Was it stimulating rather quality or quantity?

From the point of view of a faculty member, there were no problems with the system. First of all, submission was optional and not obligatory. This made the whole

framework very convenient and only interested economists participated. There were no deadlines. The submission package was composed of low-cost elements (carbon copies) and represented no problem in completing. Providing the Rector for Scientific Affairs with all required documents was organized in a convenient way.

For the university however, the whole system with its motivating part may have been very costly. Faculty members, encouraged by the ease of operating the system and its simplicity, engaged in research that resulted in numerous publications in all recognized forms with the majority of them in the least desired kind. Due to the ease of publishing low quality papers in Poland in a form of post-conference edited books, the university was often paying for publications that would have never been accepted in regular journals. This could be noted as the only serious problem that indicated a back gate for “easy riders”, allowing them to get money almost for nothing. The problem was later recognized by the Rector for Scientific Affairs. He enacted a new rule in 2007, stating that the university will grant money bonuses only for publications scored at 6 points and above. All low-score publications, when submitted to the Rector were still recorded in a database for statistical purposes, but they brought no benefits for their authors.

The system introduced at the WSB-NLU was designed in a very good manner. From the very beginning different prices for publication-points were stimulating quality rather than quantity. However, when some faculty members recognized that the system allows to be abused by submitting low quality publications to easy-publishable forms, the revision of the rules in 2007 removed this opportunity. After this reform, the system is stimulating quality of research and publications.

### **Closing remarks**

The presented case of the WSB-NLU is by all measures atypical. This private business school was created far from academic centers in big cities, in a lovely valley of Dunajec River, between beautiful mountains and forests. Over a very short period several leaders (Founder and Rector Krzysztof Pawłowski, founder and Rector, professor Andrzej Gwiżdż, Rector for Academic Affairs, and professor Marek Capiński, Rector for Scientific Affairs) were achieving remarkable and unprecedented results, consequently making their dreams come true. The WSB-NLU was a leader in business education in



Central Europe with students coming from all over the world. In scientific research the WSB-NLU achieved the top ranking based on quality and quantity of published works of faculty members. It outscored most of the leading public universities and academies of economics. This particular achievement allows us to conclude on the efficiency of the productivity measurement system and the motivation system based on it. There is no doubt that the system for measuring productivity in Economics at the WSB-NLU stimulated research. Faculty members were encouraged to perform to their abilities to maximize personal utility. The system allowed for focusing solely on teaching by those with preferences for didactic effort because it was neither requiring publications nor punishing lack of publications. Those who had chance to join the WSB-NLU faculty during its days of glory will recall it with sentiment as a very nice period.

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