

The Impact of Accreditation Agencies and other Powerful Stakeholders on the Performance Measurement in Polish Universities

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Abstract

Purpose: This study aims to extend our understanding of how internal organizational processes change in response to external demands, by investigating the changes undertaken by two Polish business schools (b-schools) in anticipation of and in response to the demands of accreditation agencies and other powerful stakeholders. Specifically, it examines the internal research-related performance measurement (PM) system and changes in the use of performance information (PI).

Design/Methodology: The case study method is adopted, using data from publicly available documents and interviews with the faculty and management at the two schools. The data are interpreted and analyzed using neo-institutional theory.

Findings: Powerful stakeholders are the primary reason for changes in PM systems and the manner in which PI are used. Specifically, accreditation agencies reflect an additional layer in the PM system, allowing a downward cascading PI effect. This also leads to a wider use of PI across different organizational levels.

Research Limitations: This study focuses on two case studies in a region still undergoing transition. Thus, this analysis could be reinforced through additional cases, different data collection methods, and cross-country and between-country comparative analyses.

Originality/Value: The changes in PM systems and particularly the use of PI are discussed in the context of Polish higher education and, more broadly, the entire Central and Eastern Europe (CEE) region. Moreover, the consideration of two b-school cases facilitates a comparative analysis of the differences in PM systems and the use of PI in the context of stakeholders' PI needs.

Paper Type: Research paper

1. Introduction

Public sector organizations are confronted with considerable changes in institutional environments (Tillema *et al.*, 2010). One important change relates to the type of primary stakeholders these organizations serve, as well as the power relationships between them and their stakeholders (Brignall and Modell, 2000; Tillema, *et al.*, 2010). The higher education sector is also affected by changes occurring in the external environment. Traditionally, one of the main stakeholders of universities has been the funding agency. In recent years, however, an increase in the influence of accreditation agencies (AAs) has been observed (Agyemang and Broadbent, 2015; Kallio and Kallio, 2014; Cooper *et al.*, 2014; Espeland and Sauder, 2016; Cret, 2011; Merry, 2011; Shore and Wright, 2015; Wright, 2009). These agencies can be viewed as information intermediaries, similar to financial intermediaries in the financial markets, and they serve an important signalling function, providing information about educational institutions to the general society (Cooper *et al.*, 2014; Espeland and Sauder, 2016).

An additional powerful stakeholder may induce changes in the expectations of Higher Education Institutions (HEIs), as the goals of various stakeholders may not be necessarily aligned, and may even be conflicting (Tillema *et al.*, 2010). The new institutional theory argues that such external pressures stimulate public organizations to design and develop performance management (PM) systems. This study explores how b-schools develop or modify their PM systems in response to the demands of emerging powerful stakeholders, such as AAs. Additionally, it investigates how performance information (PI) is used at different levels of organizational hierarchy. Finally, the consequences of changes imposed on the PM system by these powerful stakeholders are explored. Consequently, this study attempts to answer the following three questions: (1) How do b-schools develop or modify a PM system in response to the demands of important stakeholders, such as funding agencies and AAs? (2) How are PM systems cascaded down the hierarchy and how is PI used at different organizational levels? (3) What are the effects of the changes in the PM system on individual academics?

This study is both qualitative and interpretive in nature (Burrell and Morgan, 1979; Chua, 1986; Orlikowski and Baroudi, 1991). The research is grounded in a qualitative study of two b-schools. The qualitative nature of the research questions and recommendations for further research investigating changes related to accreditation (Cooper *et al.*, 2014) led to the adoption of the case study research strategy (Yin, 1994). Data were obtained by conducting semi-structured interviews with actors involved in the faculty management processes and individual faculty members, and by collecting research performance documentation. There is particular focus on research performance, as it is an important aspect considered by evaluation agencies in Poland.

This study makes three important contributions. First, in the broader sense, the study contributes to our understanding of changes in the PM systems of the public sector and more specifically, that of b-schools. It particularly focuses on external accreditations. Previous research examining external accreditations and evaluations in universities usually focuses on organizational culture (Lejeune and Vas, 2009; Teodoro and Hughes, 2012), management (Cret, 2011; Shore and Wright, 2015), sustainability (Cooper *et al.*, 2014; Lejeune, 2011), and performance (Henricks and Singhal, 1997; Woodhouse, 2003). Furthermore, research on PM systems has mainly focused on changes brought about by the national research exercise (Agyemang and Broadbent, 2015; Kallio and Kallio, 2014; Martin-Sardesai *et al.*, 2017). However, the effects of accreditations on b-school PM systems and the use of PI have attracted less attention.

Second, the study points out the possible differences in the design and evolution of PM systems between private and public b-schools. Casile and Davis-Blake (2002) suggest that the influence of external evaluation in the case of private and public universities is different, and that private universities are more likely to seek evaluation from external stakeholders such as accreditation entities. The differences in PM systems and PI used between public and private universities are also likely to stem from the perception of these important stakeholders and their information needs. Within the academic literature, comparative research on private and public universities is limited (Casani *et al.*, 2014; Dattey *et al.*, 2014) and primarily focuses on the differences in outcomes between private and public universities, such as teaching (Floyd, 2007; Stanfield, 2012) or research (Casani *et al.*, 2014). However, the differences in the context of PM and PI between the two are still under-researched (Azhar *et al.*, 2009). Casani *et al.* (2014) suggest that compared to public universities, private universities are closer to the market and business, and thus, they regard the customer as an important stakeholder. On the other hand, Dattey *et al.* (2014) find that private and public universities are subject to different degrees of isomorphic pressures.

Third, the context of this study may be of particular interest when studying b-schools in the Baltic Sea region and more generally those in CEE. Most empirical studies on PM systems have examined HEIs in the US, the UK, Australia, New Zealand, and Western Europe, with a particular focus on traditional, highly respected universities in Western Europe (Boitier and Rivière, 2013; Casile and Davis- Blake, 2002; Cooper *et al.*, 2014; Cret, 2011; Lejeune, 2011; Lejuene and Vas, 2009; ter Bogt and Scapens, 2012; Teodoro and Hughes, 2012). The unique research setting of this study may, therefore, add new insights regarding the development of PM systems in b-schools of CEE—a context that is under-researched and a region that is still

undergoing economic and social transition. The selection of this context can also be seen as a response to a new call to study private and public education in post-Soviet countries (Suspitsin, 2007).

This study comprises five sections. Section 2 presents a summary of the existing literature related to the influence of powerful stakeholders in the PM system, specifically the role of external evaluations and AAs as drivers of change. The section concludes by presenting the research framework used in the study. Section 3 discusses the research methods and research approach used for this particular project. Section 4 presents the results of this study as demonstrated by the two case studies prepared for this study. Section 5 offers a discussion that assesses the findings and attempts to interpret them through the lens of neo-institutional theory. Finally, the last section concludes the study with limitations and future research directions.

2. Literature Review

2.1 An Institutional Perspective of Powerful Stakeholders

To explain the changes in the PM system and the use of PI, neo-institutional theory was selected as the basis of this study. Therefore, the core assumption of the study is that organizations are rooted in the broader institutional context (DiMaggio and Powell, 1991). In other words, the practices of organizations are either a reflection of or response to rules and structures already built into a larger environment (Paauwe and Boselie, 2003). This environment becomes a source of behaviors, norms, and incentives, as well as the sanctions and limitations of organizational activities. Thus, organizations “tend to pattern their strategies on models and procedures that are widely recognized, accredited, and thus ‘institutionalized’ in their societal environment or organizational field” (Schriewer, 2009, p. 33) so as to increase their own chances of survival. This theory indicates that organizations operating within the same field are likely to demonstrate similar forms and practices; thus, a new dimension of institutional theory/structural similarity (isomorphism) attracted the attention of many researchers (Paauwe and Boselie, 2003).

DiMaggio and Powell (1983) argue that organizations acting under pressure become homogenized and thus *isomorphic* due to the normative process that rewards similarity. In the context of HEIs, b-schools thus seek approval and engage in accreditation processes. Isomorphism as an institutional theory is the result of an organization being a member of a similar organizational field, and it may take three forms: Normative, coercive, and mimetic (DiMaggio and Powell, 1983; Najeeb, 2013). Coercive isomorphism is the result of political influence and governmental regulations. Organizations may be required to implement changes

in their policies in response to these coercive pressures (Najeeb, 2013). In universities, such pressures arise from national and international AAs, and can be defined by laws that have an impact on these institutions in terms of their legitimization (Istileulova and Peljhan, 2013).

Normative isomorphism is associated with professionalization and refers to the relationship between management regulations and employees' backgrounds (Paauwe and Boselie, 2003). Normative isomorphism considers the impact of regulatory bodies and professional organizations on HEIs through expectations, standards, administration requirements, program contents, and international orientations. Therefore, accreditation may be regarded as a mechanism of normative isomorphism, as it is not defined by any laws (Suspitsin, 2007), but rather by codes of conduct.

Mimetic processes stem from an organization's responses to uncertainty. Organizations "model themselves" on other organizations viewed as legitimate, and copy those that are successful (DiMaggio and Powell, 1983). Therefore, HEIs seek accreditations not because of their own efficiency, but rather on account of ongoing social and economic pressures. Using the neo-institutional perspective, Brignall and Modell (2000) have developed a useful model for the analysis of powerful stakeholders and their performance interests in public sector organizations. The model includes three major groups: Funding bodies, professional groups within provider organizations, and purchasers.

According to their model, *funding bodies*, such as fund suppliers, may have an important performance interest and, as a result, can influence the PM system (Brignall and Modell, 2000; Tillema *et al.*, 2010). Within HEIs, important funding bodies are central governments, although often indirectly, who allocate funds through their own dedicated agencies. While funding bodies specify the tasks of how resources should be used, they do not identify the quality of services that should be delivered by the organization, which makes them different from the purchasers (Tillema *et al.*, 2010). Their main focus is on performance, budget allocation, and financial discipline. Additionally, they consider aspects of financial transparency and accountability. Traditionally, within public institutions, funding bodies were the only group of stakeholders with a strong power position (Mimba *et al.*, 2013). Funding bodies thus exert coercive pressures on b-schools.

In contrast to funding bodies, *professional groups* focus less on financial resources, while their primary interest lies in non-financial performance aspects related to individual employees and providing better service to clients (Brignall and Modell, 2000). Within the context of HEIs, professional groups relate to accreditation and ranking bodies. These professional groups intend to legitimize the institution in the eyes of both funding bodies and

the purchasers. According to Tilemma (*et al.*, 2010), professional groups have rather limited power in governmental organizations. Currently, professional groups are emerging as important stakeholders in HEIs. In the context of isomorphism, according to Scott (1995), accreditation standards are aspects of normative pressures.

Purchasers, similar to funding bodies, provide public sector organizations with financial resources. However, they pay for the services delivered by the organization, thus implying a relationship between the amount of funding and quality of delivered service (Brignall and Modell, 2000; Mimba *et al.*, 2013; Tilemma *et al.*, 2010). Moreover, purchasers may have the power to switch to another service provider, when unsatisfied with the client's service. In the HEI context, students are regarded as the main group of purchasers (Casile and Davis-Blake, 2002). Moreover, top-level managers within the same organization, who contract services with the agencies' managers can also be regarded as purchasers (Mimba *et al.*, 2013; Tilemma *et al.*, 2010). Purchasers are interested in both the quantity and quality of services, as well as their cost, thus reflecting the interests of other stakeholders (Brignall and Modell, 2000; Mimba *et al.*, 2013; Tillema *et al.*, 2010). Dependence on purchasers, especially students, in terms of revenues, is higher in private than in public b-schools; therefore, private b-schools are "more likely to be sensitive than public ones to the effects of accreditations on the number and market value of enrollments" (Casile and Davis-Blake, 2002, p. 184). As a result, universities may experience high pressure for accreditations, when there exists intense competition for students. Once a university obtains accreditation, others will follow suit in order to effectively compete for students. Therefore, purchasers in this sense can exert mimetic pressure on schools, which would be higher in the case of private HEIs.

In the case of a single powerful and dominant stakeholder, the managers of an organization will design the PM system to serve the needs of that powerful stakeholder (Brignall and Modell, 2000). Additionally, to meet the information needs of that dominant stakeholder adequately, the PM system will cascade down the organizational hierarchy (Mimba *et al.*, 2013). In a situation where there are two or multiple powerful stakeholders, the organization will have to choose which information needs it wants to serve first and then design the PM system accordingly. If the goals of the stakeholders are perfectly aligned, then the PM system may be a suitable mechanism to obtain the required information. However, when potential conflicting interests exist between the powerful stakeholders, these may influence the design of the PM system and limit the use of PI (Mimba *et al.*, 2013).

2.2 External Accreditation as a Driver of Change in PM System and PI

Historically, universities have used external evaluations to build their legitimacy (Cret, 2011; Cooper *et al.*, 2014; Istileulova and Peljhan, 2013) and brand (Lejeune and Vas, 2009), and thereby convince other institutions that the students of the former should be accepted by the latter (Lejeune, 2011). Accreditations can be viewed as “quality stamps” (Cret, 2011, p. 418) by students and accrediting agencies as intermediaries between universities and reduce both uncertainty (Cret, 2011) and information asymmetry (Istileulova and Peljhan, 2013) through legitimization and differentiation.

The expansion of rankings and evaluation agencies and their increased importance as stakeholders has transformed the way in which universities are managed and governed (Cooper *et al.*, 2014; Espeland and Sauder, 2016; Shore and Wright, 2015). As important stakeholders, AAs have a key interest in the performance of the b-schools they evaluate. They use a sophisticated set of PI (both financial and qualitative) in their assessment before making any decision to provide their quality stamp (Cret, 2011). As such, accreditation and evaluation agencies can be considered to hold important power positions in the university context (Cooper *et al.*, 2014; Cret, 2011), and they can “be a powerful force for quality and change in any complex system” (Boelen and Woppard, 2009, p. 893).

Furthermore, from the perspective of HEIs, the decision to participate in these accreditations and evaluations can result in widespread organizational changes within the university, as the organization’s activities become focused on specific measures by which they are judged, while the indicators become targets. Previous research on the impact of external evaluations of universities has addressed organizational change in general and changes related to university management information systems (Agyemang and Broadbent, 2015; Brooks, 2005; Cooper *et al.*, 2014; Cret, 2011; Merry, 2011; Morest, 2009; Wright, 2009). Accreditations thus serve as a management tool (Cret, 2011) used by deans, rectors, and heads of departments to support their policies dealing with the structure of their programs and faculty.

2.3 Private versus Public Universities

According to Casile and Davis-Blake (2002), private universities and public universities act more as market and nonmarket organizations, respectively. A differential characteristic of market organizations is that their effectiveness is determined by their customers; thus, if customers’ needs and interests are satisfied, they will continue to supply the inputs required by the organizations (Scott, 1987). Nonmarket organizations, on the other hand, are those for which outputs are not economically assessed by customers. Therefore, the difference between

the two lies most importantly in their relationship with the customers and their roles, because, compared to public universities, private universities are closer “to the marketplace and the business world” (Casani *et al.*, 2014, p. 61). Moreover, private universities are highly dependent on student revenues (Casile and Davis-Blake, 2002; Tolbert, 1985) and many lack other financing possibilities that would reinforce them from variations of the student demand.

From another perspective, private universities place higher priority on managing relationships with customers in order to remain competitive. Competitiveness between institutions is mirrored by the increased focus on international rankings and accreditation institutions, which became a major differentiator for private universities (Casani *et al.*, 2014). Whereas, in the case of public HEIs, their success rests on their ability to comply and satisfy the criteria of evaluation which are determined socially, and thus, these institutions seek legitimization through the conformity with institutionalized practices (Dobbin *et al.*, 1993; Thomson, 1967). Dobbin *et al.* (1993) argued that public organizations in general are highly dependent on the public opinion and therefore are evaluated differently than private organizations. As a result, private universities are more likely to seek legitimization in the form of accreditations driven by the logic of economic efficiency, while for public b-schools, the “logic of appropriateness” (March and Olsen, 1989) is more pervasive.

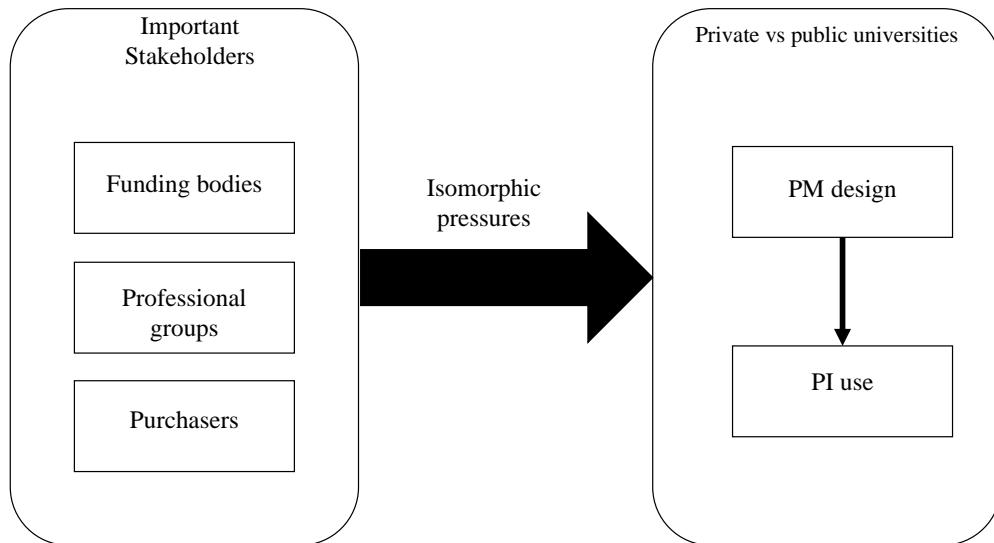
Most importantly, private universities are believed to have different objectives and management methods, than public ones (Azhar *et al.*, 2009; Casani *et al.*, 2014), and as a result have different outcomes (Casani *et al.*, 2014). Additionally, public HEIs seem to be more responsive than private HEIs in a normative environment (Casile and Davis-Blake, 2002).

Dattey *et al.* (2014) found that compared to public universities, private universities are more vulnerable to isomorphic pressure owing to their continuous quest for accreditations. Therefore, private b-schools not only have to comply to legislations (coercive), but also are more likely to experience normative pressure due to their strive for accreditations. Furthermore, because private b-schools are more likely to compete for students, they copy the ways of their mentors, thus engaging into mimetic isomorphism (p. 318). On the other hand, according to Dattey *et al.* (2014), public universities are more vulnerable to coercive isomorphism that is related to legislation, while being less likely affected by normative and mimetic isomorphism.

2.4 The Research Framework

This study explores the changes in the PM system and PI use in response to external demands, or in anticipation of external pressures, from an additional powerful stakeholder, such as an AA. A theoretical model (see Figure 1) is developed that identifies the changes in the PM system and PI use as a result of the pressures exerted by powerful stakeholders. Based on previous studies, it is assumed that the PM system will be adopted to serve the information needs of powerful stakeholders (Boelen and Woppard, 2009; Brignall and Modell, 2000; Mimba *et al.*, 2013; ter Bogaard and Scapens, 2012; Tillema *et al.*, 2010). First, the main stakeholders in both public and private b-schools are identified. These stakeholders are treated as agents of change in the PM system. Therefore, their impact on the PM system design and PI use in both types of organizations is investigated. There is particular focus on AAs. The study assumes that including the AAs as main stakeholders may result in a change in the design of the PM system. As a result, the PM systems are more likely to diverge from the needs of the dominating stakeholders due to their now conflicting interests.

Figure 1. Research model



The design of the PM system and PI may be influenced by the external pressures of dominant stakeholders, and a university will have to choose which information needs will the internal PM system serve. Therefore, the study also considers how PI cascades down the organizational hierarchy (Mimba *et al.*, 2013) and how it is implemented at different levels (top management, departmental, and individual).

The empirical part of this article further explores the potential differences between the public and private b-schools, which may arise from different perceptions of the powerful stakeholders.

3 Research Methodology

This study was carried out using a qualitative method (Strauss and Corbin, 1998) that allows us to understand a phenomenon in its natural context and compare it with the existing theory. Qualitative methods are considered most suitable for exploring phenomena that are context-sensitive (e.g., Eisenhardt, 1989; Gephart, 2004; Pettigrew, 1990).

An explanatory case study method is adopted to obtain in-depth understanding of the external pressures exerted by various agencies on PM systems and PI use. Doing so offers an exhaustive description of the present situation as well as certain historical aspects, such as administrative and organizational contexts.

This study poses the following research questions:

- (1) How do b-schools develop or modify a PM system in response to important stakeholders' demands, such as funding agencies and AAs?
- (2) How are PM systems cascaded down the hierarchy and how is PI used at different organizational levels? And finally,
- (3) What are the effects of the changes in the PM system, which are imposed on individual academics?

A comparative case study analysis was selected. The advantage of utilizing comparative analysis is that, whereas a single case study results in an in-depth study of a social unit, a comparative case study (Miles and Huberman, 1994) allowed us to investigate the similarities, differences, and patterns in PM system and PI use occurring across two b-schools in Poland.

To minimize research bias and improve the quality of analysis, this research used the triangulation of data. In accordance with Yin's (1994) criteria for case study research, this research methodology brings together different sources of evidence to ensure crosscheck and construct validity. The authors used both primary and secondary sources of data, including internal data (shared by the b-school) and external (publicly available) data. Secondary sources included b-school regulations, rectors' directives, minutes of senate and rectors' meetings, accreditation reports, committee meetings and their minutes, and research reports (see Appendix 1).

The primary source of data was a set of 24 semi-structured interviews, 15 from a business school X (bsX) and 9 from a business school Y (bsY). The disproportion in the number of

interviews can be attributed to the limited availability of interviews and to the fact that public b-school employees did not want to speak about the system. It was possible to conduct interviews at bsY, but only thanks to having personal contacts there. All of the interviews were conducted face-to-face, recorded, and transcribed later. They were conducted with actors involved in the faculty management process as well as with individual faculty members from different levels and ranks (see Appendix 2). The approach of interviewing different people on the same topic improved the level of validity and the reliability of the research project. The researcher attempted, to the greatest extent possible, to conduct interviews with a wide range of providers and users of PM and management tools.

The interview questions (for the interview scenario, see Appendix 3) focused on (1) the main reasons for change in the PM and PM system design process; (2) internal and external actors that were affecting the PM system; (2) the use of PI at the individual, departmental, and top management levels; (3) the quality of PI; and (4) how changes in the PM system affected academics.

The data obtained were coded and analyzed by one of the team members using the MAXQDA computer tool. Coding was performed at three levels—open, axial, and selective (Strauss and Corbin, 1998)—to integrate the observations into the coding categories. First, open coding was adopted by creating initial codes (derived from the textual field data and representing the main characteristics of the studied empirical material; line-by-line coding), such as “international accreditations,” “ministry,” “competition.” Thereafter, axial coding was applied to identify the relationships between the codes and combine the codes into major categories. For instance, the codes “international accreditations,” “ministry,” and “competition” were labeled with the category “stakeholders.” At the final phase, selective coding was implemented. The categories were further defined, developed, and brought together to develop broader clusters and create a story. The core concepts were selected. For instance, categories such as “assessment criteria,” and “stakeholders” were grouped into one meta-category, namely “design of the PM system” (see Appendix 4).

In the next stage, a comparative analysis method (Glaser and Strauss, 1967) was applied to perform a cross-case analysis. The team jointly discussed the results of the analysis. The gathered material was examined and compared it with the results of existing studies. The data analysis helped to develop a narrative of how the PM system is designed and used at these b-schools.

The cases of two b-schools—bsX and bsY—that are similar in size and scope of services provided, were analysed. However, they are different with respect to their ownership structure.

Both the b-schools are subject to a voluntary research evaluation administered by a governmental agency, as well as to international accreditations. Table 1 provides additional information on the analysed b-schools.

Table 1. The background information on b-schools

University	bsX	bsY
Ownership	Private	Public
Location	Warsaw	Warsaw
Years functioning	>20	>40
International accreditations	>3	>3
Presence in recognized international rankings	YES	YES
National parametric evaluation	KEJN A category	KEJN A category
Habilitation granting rights	YES	YES
Number of students	>5 000	>6 000
Number of academic staff	>200	>170

The first b-school, bsX, is a private and independent non-profit b-school, which originated in 1992. It holds doctoral granting rights in management, economics, law, finance, and sociology and is the only private HEI in Poland that holds habilitation-granting rights in both management and economics.

The second b-school, bsY, is part of a traditional, well-established public university. It was established in 1972 and was designed to popularize the Western approach to management. Currently, bsY holds doctoral granting rights in management and is considered a leading b-school at the national level.

4 Results

4.1 The Higher Education Sector in Poland and the Main Evaluation Agencies

Higher education in Poland is one of the most dynamically developing areas of the Polish society (Dobija and Hałas-Dej, 2017). The system of higher education can be characterized by high dispersion. There are more than 400 HEIs, out of which 300 are private HEIs. All HEIs

(both public and private) are highly reputable universities nationally and internationally, as well as regionally, offering education to meet diverse local and market needs.

Two parliamentary acts regulate Poland's higher education (HE) system: The Parliamentary Act of July 27, 2005, also known as the Law on Higher Education, regulates the HE system in Poland, while the Parliamentary Act of March 14, 2003, on academic degrees and academic titles in the area of Arts regulates matters that relate to obtaining academic qualifications. The General Council of Higher Education cooperates with the Minister of Science and Higher Education (Minister) and with other government bodies to develop the state's educational policy in the area of HE. The Council is responsible for defining fields of study and developing educational standards. These standards are then implemented in accordance with a separate regulation compiled by the Ministry of Science and Higher Education (Ministry)

The Polish Accreditation Committee (PAC) is the only statutory body in Poland that is responsible for the evaluation of the quality of education provided by HEIs, through both program and institutional evaluations. The PAC evaluates institutions and presents its results to the Minister. This evaluation decides whether the institution should be permitted to run the given courses and programs. Moreover, the PAC decides whether the given institutions can hold the right to grant scientific titles. Each Polish HEI (both public and private ones) is obliged to be evaluated by the Committee, and the results are publicly available.

The scientific excellence of the scientific units of HE is monitored by the Committee for the Evaluation of Scientific Units (KEJN), a consultative and advisory body to the Minister. The Committee's main task is to lay down both project parameters and criteria for the comprehensive evaluation of scientific units and perform evaluation at least every four years. The Committee indicates to the Minister the leading scientific units, taking into account the quality of their scientific activity, in order to determine the level of financial support to be granted to fund their research potential. The evaluation is voluntary for all HEIs in Poland and is conducted on average every three years. As a result of this evaluation, HEIs receive a research category. The outcome of the evaluation is then linked to the research funding that HEIs receive from the State.

Since the late 1990s, b-schools in Poland have participated in a number of assessment processes to obtain various accreditations, and are initiating various strategies to secure international accreditations. Two universities in Poland possess European Quality Improvement System (EQUIS) accreditation; additionally, four programmes at different universities are accredited with European Programme Accreditation System (EPAS). Two -schools are accredited by Association to advance Collegiate Schools of Business (AACSB) and five MBA

programs are accredited by the Association of MBAs (AMBA). Although the total number of these institutions is small, it is growing steadily. The increase in the efforts of b-schools to secure international accreditation reinforces the belief that international accreditation is a signal to stakeholders regarding the quality of education, and is also reflected in the Ministry's decision to reimburse the direct costs of obtaining such accreditation.

4.2 Design of the PM System

4.2.1 PM system design at bsX – main stakeholders

In the case of bsX, there are two main stakeholders that influence the PM system design. The first one, which is most frequently mentioned by the interviewees, is the international accreditation body. As expressed by one of the interviewees: “in the first place [it was forced] by international accreditation. It was simply forced. There must be an evaluation, so we do the evaluation” (**P2**). The dominating role of accreditation bodies is also visible when participants pointed out that the PM system has been evolving since the school’s first international accreditation in the late 1990s.

Interviewees argued that international accreditations helped the school, thanks to forcing some specific solutions: “accreditations have helped us a lot, apparently. That’s because they as if force certain things. (...). They made us aware of a need to have some tasks and measures in place” (**P8**). International accreditations were considered as symbols of quality and helped improve the school’s performance, thanks to the specific requirements by the accrediting agencies: “If the university is supposed be a research institution, it [accreditation] helps us in the managing the school, providing us with necessary guidelines” (**P7**).

The power of international accrediting agencies as stakeholders can also be observed from the fact that bsX treats its PM system as a strategic resource used in b-school management.

***P4:** I think, at least on the basis of my limited information, that the main reason for changing this system was the school's strategy and ... the need to achieve accreditation and, as a result of feedback obtained from the accreditation committees that our research and publications efforts are insufficient to maintain accreditation in the long term.*

This suggests that international accreditation standards were the main driving force in creating the PM system. The school applied for accreditations because: “there are no challenges on the so-called domestic market. We have no challenges to face here at home. We have created these challenges ourselves by accessing the system of accreditations. This was a lucky choice because it let us reach the level we represent today.” (**P8**). This reveals that it was the school’s

decision to obtain accreditations. The reason behind this decision was to be as commendable as the leading Western b-schools:

P2: The aim of this system was to make our internal procedures more similar to Western universities or to higher education institutions that are better than us. (...) I mean, the level of requirements, which appears shocking to other Polish higher education institutions, is pretty usual abroad, it's a standard.

BsX wanted to be “a recognized international school” (**P10**), and therefore, the international market became its competitive arena. As observed by one of the interviewee: “employee achievements are as if a way to enhance the position of the universities, regardless of financial matters” (**P1**).

The second important stakeholder influencing the PM system at bsX is the Ministry. As stated by one of the interviewees, occupying the top management position, the Ministry is the most important stakeholder, because it decides the allocation of financial resources for research: “the system of higher education management and the system of allocation of research funds play both a key part here because they require appropriate substantiation of results in order to be provided with further resources. It’s a decisive factor” (**P8**). One of the participants directly stated that bsX must comply with the Ministry’s requirements and do what is expected of them without hesitation, because they must fit the system: “we, as a higher education institution, also need to conform to some system, to some rules” (**P10**).

As stated previously, the PM system was created to ensure compliance with international standards and increase international competitiveness. The bsX strategy was thus aimed at internationalization and attracting international students. This suggests that students’ expectations also played a role in the PM system design.

4.2.2 PM system – assessment procedure at bsX

The research assessment is performed annually or every two years, depending on the academic position. BsX specifies different requirements for research and teaching staff. The system is designed to motivate academics to publish in top-tier journals. The research shows that the b-school has shifted away from “evidencing” to “planning” one’s career path instead (**P11**). For example, each faculty member is asked to define his or her scientific objectives for the short and the long term, and his/her two-year teaching plans. Furthermore, since 2017, the Assessment Committee has been scheduling meetings with all the academics; previously, there were only meetings with faculty members who showed poor performance. Therefore, the

purpose of the meeting was perceived as “mainly for penalizing” (**P11**) poor performance. Currently, some positive feedback concerning meetings can be observed:

P2: *Somebody said, “And why do they do that? To press us again.” Somebody else said, “Well, I was actually praised, so I liked it, in fact.”*

The interviewees also mentioned that they were consulted and asked for their opinions on the final format of the system.

4.2.3 PM system design at bsY - main stakeholders

The main stakeholder identified by the interviewees that has an impact on the PM system design at bsY was the Ministry. As stated by the interviewees, the major change in the system was brought about in 2016 when a new government was elected, and the institution was assigned new authorities. The assessment procedure was designed to provide precise information required for the evaluation of universities and research centers by KEJN.

P19: *This system of parameterization has forced some changes, at least for us at the university, it forced some adjustments.*

One of the reasons why bsY followed the regulations is because of financial purposes: “this forms the basis for a later algorithm of budget allocation, and thus, higher education institution parametrization is an important element when it comes to sharing public funds” (**P16**). It determines the existence of bsY: “this is related to the university's existence, the school must have appropriate categories that are imposed from above and school must score highly in these categories” (**P19**). The better the research performance of bsY, the more money the school receives: “ministry requirements are very existential requirements because there is money involved; the higher (lower) your category the higher (lower) the funds you receive” (**P19**).

The interviewees argued that the Ministry has changed the requirement because it wants to “adjust the Polish science to European science” (**P20**). The new parametrization allows to compare universities between themselves (in the form of rankings) and should “motivate schools to chase the international schools” (**P16**). The dean from bsY states that he prefers to compete internationally than on the domestic market, because what matters is world science: “I'm a supporter of a truly international level competition; (...) we should look at Oxford and Cambridge universities, which are the leading universities in the UK and the US, respectively. You have to compete on what you can bring to the table of world science” (**P19**).

It is important to note that although the public b-school in question herein is internationally accredited, the interviewees spoke of this fact rather laconically in the context of PM system

design. For example, one of the interviewees believed that the b-school wasted its time by not following the process of international accreditation from the beginning:

P17: *Our university has been surely attaching more importance to accreditations, considering the fact that accreditations, especially international ones, impact the image of a given higher education institution in the higher education market in its broad sense. (...). I think that bsY has been living a long time under a rock and has become active in the field only recently. It spent the first decade of the phenomenon in ignorance.*

4.2.4 PM system - assessment procedure at bsY

Originally, a formal questionnaire on one's achievements was filled in once every four years at bsY. However, the information collected through this questionnaire was not used for evaluation. One of the interviewees described the system as:

P22: *It involved listing and describing one's results in any form, including an essay or poem, provided that these achievements were described therein.*

One of the interviewees emphasized that the resources were distributed in an “absurd manner” (**P21**). They were awarded even to passive academics who “had not been able to produce any research for a long time” because of their age, health, or limited intellectual capacity” (**P21**). The principles for awarding resources were defined; however, the authorities did not follow them.

Currently, as part of the parametric evaluation run by KEJN, an assessment at bsY takes place every four years. The assessment considers the score earned by a given academic for his/her research activity over a given period. A set of rules was also introduced, which regulated the principles for awarding resources to pursue statutory activity, depending also on the score obtained for publishing.

At the same time, there is a system that regulates the rules of awarding bonuses to the base salary – the previous system has been modified. Previously, bonus was treated as a fixed element of one's salary. Currently, the amount of the bonus depends on one's performance in three areas: a) teaching; b) organizational work; and c) academic research over the past year. Thus, the change in the system, once really advantageous from the point of view of all staff members, produced an array of negative reactions.

P20: *The new system does not guarantee that irrespective of your performance, you will get the salary bonus. So, not everyone was happy about it. Those who observe, for example, that after the changes, they will receive only 20% of the bonus, they can realistically multiply the amount for 12 months and determine how much they will lose due to the new system.*

Therefore, the dean now plans to introduce some activities promoting academics who achieve 100 percent of the bonus, in an attempt to prove that the new rules were not established to decrease the bonus for faculty members but as a means to motivate them to publish.

4.2.5 Comparison of the PM system designs at bsX and bsY

Interestingly enough, the interviewees indicate that the PM system was introduced only to fulfill the requirements and expectations of external stakeholders. The PM systems both at bsX and bsY have been modified over the course of the schools' functioning process. Previously, the system was considered a kind of window dressing, and the system did not function accurately; however, in the light of the requirements for stakeholders, it has evolved. At bsX, the process for the creation of the PM system began much earlier than it did for bsY, and it was directly related to being awarded an international accreditation. The dominant "stakeholder" influencing the design of bsY's PM system seems to be ministerial accreditations bodies. The radical PM system redesign was implemented in 2016 mainly to fulfill the requirements of national agencies.

This dependency both of bsX and bsY on the funding body (Ministry) and professional groups (AAs) is an example of **coercive pressures**. Thus, institutions, including the ministry and international accreditation agencies, forced universities to change the PM system and comply with the requirements of the former. The coercive pressure seems to be stronger in the case of bsY because this school designs the PM system according to the Ministry's rules. While in the case of bsX, international accreditations seem to play a key role in developing the PM system, which demonstrates the **normative pressures** at bsX. Certain accreditation solutions (e.g., considering PM system design) and metrics from accreditation standards together with recommendations from accreditation committees exert normative pressure. All of these factors force bsX to comply with accreditation procedures. In the case of bsY, this pressure is less visible. Only one interviewee mentioned that the accreditation standards have an impact on the PM system design, but this impact is still weak. Thus, the extent of normative pressure is lower in public universities than in private ones.

The last isomorphism pressure that is visible is **mimetic**. Both b-schools seem to be making efforts to be recognized internationally. Employees' research performance is a way to enhance the international position of the b-schools. BsX and bsY aim to match up with Western HEIs and copy them to a certain extent. This provides incentives to the institutions to adopt practices similar to those of foreign b-schools. However, such pressures are more visible in the

case of bsX, which is more focused on the international market and where, as stated by the interviewees, internationalization is part of its strategy.

4.3 Use of PI at Different Organizational Levels

4.3.1 Use of PI at bsX

PI is used at bsX for different purposes. Most of the academic staff at bsX believe that international accreditations are the major reason behind the use of PI. The b-school collects required data and submits reports within the international accreditation framework: “the accreditation office uses information about all publications, all research grants very intensively, because they include this in the reports often as our achievements” (**P12**).

However, as mentioned by the study participants, it is not just the international accreditation agencies that expect reports. The Ministry also requires PI that bsX has to collect and analyze: “of course, the pressure of the ministerial bureaucracy and accreditation agencies, among others, are all factors that favor it [PI use]. In order to produce relevant reports, you need to have information” (**P8**).

Apart from reporting purposes, bsX uses PI not only to obtain but also to sustain these international accreditations: “The university has (...) accreditations. It is very important to maintain them. It is much harder to maintain them than to obtain them (...)" (**P14**). This is also visible in the next interviewee’s comment:

***P4:** This [information] is important, because such knowledge about our situation 2-3 years in advance, taking into account the accreditations etc., is important. For example, I know that it is being followed by the research support office and by the rectors. The trend in terms of articles with the impact factor is just growing, which is nice in our university.*

This observation also shows that another reason behind PI use is research performance improvement. The analysis of PI increases the school’s awareness about its current situation.

Interviewees also stressed that PI is collected for ranking needs: “the authorities are highly interested, because it has a substantial impact on the b-schools’ rankings” (**P12**).

Furthermore, PI is used to facilitate decisions regarding human resources and academic policies. Based on the collected PI, b-school authorities decide whether to employ new academic staff, award internal grants, or endorse academic advancement. PI is also used to enhance the b-school’s market position. Interestingly enough, the interviewees spoke of an additional purpose of PI, namely, to manage the b-school to help it achieve the best results possible.

P8: *The university's authorities want to ensure that the university continues to exhibit excellent performance and scores high in rankings, and the same goes for department heads, for individuals, as it all comes from the simplest mechanism of competition. (...) and this is where they need information on what they have gained, what effects they can expect, and so on.*

Apart from the b-school authorities, department heads take advantage of PI as well. Interviewees from bsX indicated that the collected data allows them to motivate and support their own staff. A department head may nominate its academic staff for awards or ask for a bonus for the staff based on their achievements. One of them indicated that PI lets her identify the “weakest links” (**P2**) in her department. Additionally, at the departmental level, PI are used to allocate work load:

P3: *These information are used by the head of departments (...) to allocate teaching load and organizational work, so that the tasks are more or less equally distributed among employees.*

An interviewee stated that while the PM system is used by department heads to gauge their employees’ achievements, they could do so even without it.

P8: *At the department level, you just usually know it. Departments are small units, and their heads just know what their employees do, what achievements they have, and there's no need for them to have some special information databases at their disposal (...).*

Individual academic teachers from bsX take advantage of their PM system. They mentioned three ways in which they use PI. First, the common purpose for utilizing it is self-assessment. Thanks to the accumulated information on one’s performance, academics are able to view what they have published and what they still need to achieve to meet certain criteria (e.g., the criteria for being conferred a “Ph.D.” “Ph.D. with habilitation,” or other criteria imposed by the b-school).

P11: *I observe what I have actually accomplished so far. It is very useful (...) as it shows whether those priorities have been achieved (...) it is a valuable feedback”*

This self-assessment also involves a comparison of one’s performance to the achievements of others. Several employees have suggested that the reported information on one’s publications and current research projects constitute a valuable source of information on colleagues. The PM system is designed in a way to support sharing of information, as all the data are fully available on each employee’s personal website. As a result, at the individual level, PI are used to support the formation of research teams. As one of the interviewees has put it:

P15: *I am interested in what my colleagues are doing, thanks to it I can go to them with my problems and ask them for help (...) those daily consultations are helpful whenever I am stuck with my work and I know who to turn to.*

Second, this information allows the school to identify specialists in a given research area and establish cooperation to conduct shared research projects. This also makes it possible to take advantage of consultation if a given person requires further guidance or assistance. For example, a more experienced academic specializing in a given field may offer his/her assistance to a less experienced one. Third, PI makes it possible to create a personal brand. One of the interviewees appeared to have taken advantage of PI to contact businesses to legitimize herself.

P12: *It is surely possible to use it to develop your own offer if you want to work with companies and introduce yourself in a certain way. I, for instance, use such information when I work on my research projects and need to contact some businesses (...), I always make use of my university card in such situations because it creates some awareness that I'm employed at this university and I have some publications under my belt.*

4.3.2 Use of PI at bsY

BsY authorities use PI for two purposes. First, they are used to make decisions on human resources. Currently, staff members receive a salary bonus based on their achievements. There are also rankings of staff and points obtained for publishing activity (available to the b-school's authorities only), which become the topics of informal discussions. Second, PI are used for external reporting to the Ministry and for b-school ranking purposes. The collected data are crucial when it comes to allocating budget subsidies received from the Ministry. Interestingly enough, one interviewee stated that PI is not used to pursue the b-school's strategic goals.

P21: *I have no doubt that this information is used by someone, but I'm afraid it's impossible to see it being used for the purpose of some long-term development of a faculty, for creating strategies, and thinking whom to invest in and how to do that. That's all.*

The data derived from a PM system are also utilized by department heads. They monitor the performance and achievements of their staff members and then motivate them individually to publish or take part in conferences. On the other hand, a PM system makes it possible to identify the poorest performing staff – and try to find the reason behind the poor performance. One of the interviewees stated, however, that he does not need the data at all because he is already very well familiar with the achievements of his team members.

When it comes to individual teachers from bsY being included in the study, only three academic staff members from bsY mentioned that PI were helpful in assessing their own performance because it enabled them to reflect on their research activity and the number of points they have gathered by their publications. The interviewees also mentioned that the reason for using the data was the new system of salary bonuses. Nevertheless, it is important to add that one of the interviewees from bsY said that they did not need PI at all because they already knew what they published.

4.3.3 Comparison of PI use at bsX and bsY

The conducted study reveals that the public b-school covered in the research project takes lesser advantage of PI compared with the private b-school. The Ministry's expectations and requirements are one of the factors behind the use of PI by the top management of both bsX and bsY. The Ministry grants universities research funds, and for this purpose, every university needs to document its achievements and performance properly and precisely. Both b-schools use PI for ranking purposes which demonstrates **mimetic pressures**. Rankings allow schools to compare their achievements against each other as well as legitimize themselves in the eyes of the customers. However, rankings seem to be more important in the case of bsX, due to the increased need for competition within the international market for international students.

In contrast to bsY, important stakeholders who have an impact on the use of PI at bsX are international accreditation bodies, which requires certain metrics and reporting. Although bsY has accreditations, interviewees are often not aware of them, nor assign them an important role in the PM system design. In the case of bsX, the use of PI to comply with the accreditations standards is an example of **normative pressure**.

Differences between the two b-schools can be also seen in the context of their use of data and information by lower organizational levels, namely, at departmental and individual levels, thus suggesting a downward cascading effect of the PI. In the cases of both bsX and bsY, PI is used by department heads, although the intensity of use in bsY is far lower than in bsX.

Therefore, the use PI by individuals at bsY is very limited and interviewees were barely able to provide any examples. In the case of bsX, however, the staff use PI not only for self-assessment, but also to be able to work with other academic staff members who share their research interests, or with businesses that wish to conduct related research projects.

The data are thus used to a significant degree across the entire organizational hierarchy – in a top-down manner, demonstrating that PI cascades down the hierarchy and is indeed used for functional purposes by providing useful guidance in terms of decision-making.

4.4 Effects of changes in the PM system on individual academics

4.4.1 Positive effects – bsX

Mobilization was one of the advantages discussed by the participants of the study, as there are certain specific criteria that must be met within specific deadlines. A PM system allows one to plan ahead and think about one's plans, and "move away from one's routine" (**P10**). Additionally, the PM system motivates employees because there is a bonus system for high-quality publications: "the financial rewards are certainly an incentive" (**P13**). The system also supports selectivity. Academics stated they would rather wait and publish their research results in a better journal than publish them faster, but in a lower-ranked one. One of the interviewees mentioned that the common view at the b-school was that if you published in top journals, you were "super" (**P15**). He admitted that he has published in such journals, not because the b-school urged him to do so, but because of peer pressure.

4.4.2 Negative effects – bsX

There are also some negative effects of the PM system. Among the issues mentioned by bsX employees was the lack of freedom to organize oneself, handle research topics that appear interesting at a given time, and choose where to publish one's work. This conflict of interest is indeed visible in the comment below:

P15: (...) from my point of view, for instance, it would be better to publish a book, not an article in a JCR¹-listed journal because the topic or the target audience is more suitable from my perspective. But I do realize that it doesn't pay off for the university to do this, so I'm rather motivated to deal with something else. (...) As an individual, I feel lost. Well, maybe not as an individual, but as a scientist. A scientist who is supposed to be independent, who feels that it's impossible to experiment because... it's not going to land them a publication in a JCR-listed journal.

This suggests that participants experience a feeling of incompleteness that they do not contribute sufficiently to science or even to themselves, even if they serve the b-school. What is most important is the development of bsX, not the development of the faculty members. Another important issue concerns the different attempts to elude the system. Employees do not want to reveal all their research and development plans. They do not want to show that they are ambitious, because these plans will be thoroughly accounted for in their future performance: "Employees hide their ambitious plans (...) if you write too much what you want, and if you slip up, then you will be criticized for the fact that it was not realized (**P11**).

¹ JCR is used to refer to the Social Sciences Citation Index (SSCI)®

Therefore, the system is called by some people as “inhuman” (**P2**). The reason why employees do not reveal all their goals is because they want to secure themselves.

P11: *You may not able to guarantee that within two years, you will have multiple publications at various journals, because you may not actually achieve it. Nothing guarantees you acceptance. Nothing guarantees you getting to conferences, especially the more competitive and better ones. (...) People want to secure themselves, because (...) it is better to have a pleasant surprise than a disappointment, meaning that they may fail to fulfill their promise and live up to own expectations.*

The PM system, as stated above, concentrates on individual performance, and poor performance can have negative consequences for faculty members. If the person fails to meet the requirements, s/he will be moved to the teaching position with increased teaching load. The increased teaching load limits the time that can be allocated to research. This may lead to frustration among people, because they cannot return to the scientific positions: “My other colleagues feel that they have been sentenced to didactic performance for life. (...). It is difficult to write articles and prepare habilitation” (**P6**).

Moreover, the system does not support teaching academics. The teaching position is perceived as “worse.” The school focuses on scientific achievements from the beginning of the employment.

P13: *From the very beginning I felt that didactics is something worse. Maybe it is my opinion ..No, because in our department as well, if someone is accepted, the key criterion is the research and publishing potential. Therefore, he/she will somehow adapt to didactics.*

The system also does not set the teaching requirements precisely, and thus, teaching academics do not know what bsX expects from them: “In teaching, this assessment is based on the points, but the way they are calculated is not known” (**P9**). It is hard to be appreciated for teaching achievements.

P10: *There is a so-called teaching award, but to be honest I have no idea how to get it. I have no idea who is reporting it. Honestly, since I do not know what the procedure looks like, I'm sure that 80% of the academic or teaching staff employed at the university do not know what the procedure for awarding the award really is. In any case, we have had really endless discussions about the underestimation of teaching at our university. I still think that the teaching path is treated as worse, as a second, substitute for a career in science.*

The last comment shows that working only as a teaching faculty makes people feel penalized and worse, with low probability of being appreciated.

4.4.3 Positive effects – bsY

An interesting phenomenon encountered in this research is that in the case of the public b-school, only one dean and one of the academics interviewed spoke of the benefits related to the implemented PM system, that is, motivating and appreciating those who publish, stimulating those who have the potential but “have got used to doing nothing for years” (**P20**), and increasing the awareness of being a part of an increasingly demanding environment that requires taking multiple quantitative indicators into consideration.

4.4.4 Negative effects – BsY

Most of the interviewees, in turn, tended to strongly criticize the applied PM system. There was a common view that the system is not coherent and that it is just an eclectic set of makeshift instruments extended over time. “Nobody has ever sat down to think the purpose of this measurement through” (**P23**). Moreover, there were tendencies to adjust the system for people who enjoyed a higher position at the b-school –“we cannot lead to a situation where person X is disadvantaged in our remuneration system” (**P23**). B-school staff also noticed that when it comes to publishing, there has been lesser focus on the quality of the conducted research and the publications, and quantity is of paramount importance. There was also one participant who mentioned that the system can destroy creativity and eliminate people who can be valuable for the b-school: “it is bad, because I am afraid that if we go further in this direction of parameterization and accurate valuation, we will naturally lose people from our science, who are just such non-standard, who are such crazy people, but who can, after many years, bring something” (**P22**).

4.4.5 A Comparison of the effects of changes in the PM system – bsX and bsY

There are visible differences in the perception of the PM system among bsX and bsY. It seems that bsX’s PM system is more mature and balanced. The interviewees, including top management, department heads, and individual staff members, observed both positive and negative effects. This viewpoint may also result from the fact that each level, or tier, takes advantage of the data in question in their daily work effort, and that the PM system has been discussed with all of the parties concerned. While the PM system offers certain incentives (i.e., awards for publication), academic staff members also observe some negative consequences – working under the pressure to publish and limited creativity (being skeptical about the fact that the innovative research can be hard to publish in top-ranked journals). The participants are also

confused about the role of teaching in the assessment. Being a teaching faculty is perceived as worse, and is not appreciated.

Most research participants from bsY, in turn, tended to speak mainly of the disadvantages. They regard the system as ill-considered and focusing on quantity over quality. This aspect may make researchers play it safe and publish more often, but only in more “accessible” journals. The terms and conditions of awarding salary bonuses have also changed, which may reflect badly on the system from the perspective of b-school employees. One dean was an exception though and spoke of the system highly. However, it is important to stress that the dean was also one of the co-creators of the system.

5 Discussion

To address the research questions of how b-schools develop and/or modify a PM system in response to important stakeholders’ needs, how PI is used at different organizational levels, and the effects of such changes in the PM system imposed on individual academics, the nature of the university sector in Poland is outlined and the changes in PM systems at two b-schools in Poland are discussed.

Within the academic literature, it can be argued that the efficiency and usefulness of the PM system depends on its powerful stakeholders’ interest in PI (Brignall and Modell, 2000; Mimba *et al.*, 2013). Brignall and Modell (2000) suggest that three possible stakeholders may have performance interests: funding bodies, professional groups, and purchasers. Each of them, however, may have different power position and ability to influence PM systems in public sector organizations.

The empirical materials collected for this study document the importance of the first two stakeholders—state funding agency and AAs—and their influence on the PM system in the higher education sector. The research also documented on the ways in which PM systems in both institutions functioned. There is, however, no evidence that the third stakeholder, identified by Brignall and Modell (2000) as purchasers, can influence the design of the PM system or PI use. Nevertheless, it can be stated that purchasers indirectly influence the PM system and PI use, because private b-schools in particular are highly dependent on purchasers for whom accreditations, ranking positions, and legitimacy of universities are elements that influence their choices (Casile and Davis-Blake, 2002; Dattey *et al.*, 2014).

However, there exist important differences between the two studied cases in terms on the forces shaping the PM system and PI use.

Not surprisingly, coercive forces influence the design of the PM system and PI use in a public university (Mimba *et al.*, 2013). The PM system has always served the performance expectation of the governmental agency. Indeed, bsY developed a new and more sophisticated system in response to the recent requirements set by the national funding agencies. Moreover, its faculty members, to a lesser degree, consider accreditations as a major driver of changes in the PM system. As Dobbin *et al.* (1993) argued, public organizations are differently evaluated than private ones, which is also visible from the empirical evidence. The existing system seems to be working well for bsY, in the sense that the university is able to provide the requested information to the national evaluation agency; however, its value is still questioned by faculty members.

On the other hand, the main forces shaping the PM system in the case of bsX is somewhat different. Two powerful stakeholders seem to have an impact on the design of the PM system and PI use in the university. The empirical analysis documented the degree of coercive forces shaping the PM system. The system needs to be compliant with the expectation of the governmental funding agency, because a proportion of the research funds comes from the state. However, the system seems to be dominated by performance expectations set by AAs, while still meeting the demands of the state funding agency. These normative forces have a strong influence on the way how PM is built and PI is used. The performance expectations of AAs make the PM system more proactive and cascade down the b-school hierarchy. The empirical materials included in this study also document the importance of mimetic isomorphic processes affecting the PM system and PI use, connected with increased competitiveness in the international market.

Therefore, institutions may experience all of the three types of isomorphism to legitimize themselves, although in different degrees, which is presented in Table 2. Table 2 offers a summary of the forces influencing the PM system and PI use in the analyzed cases.

Table 2. Isomorphic pressures on PM system design

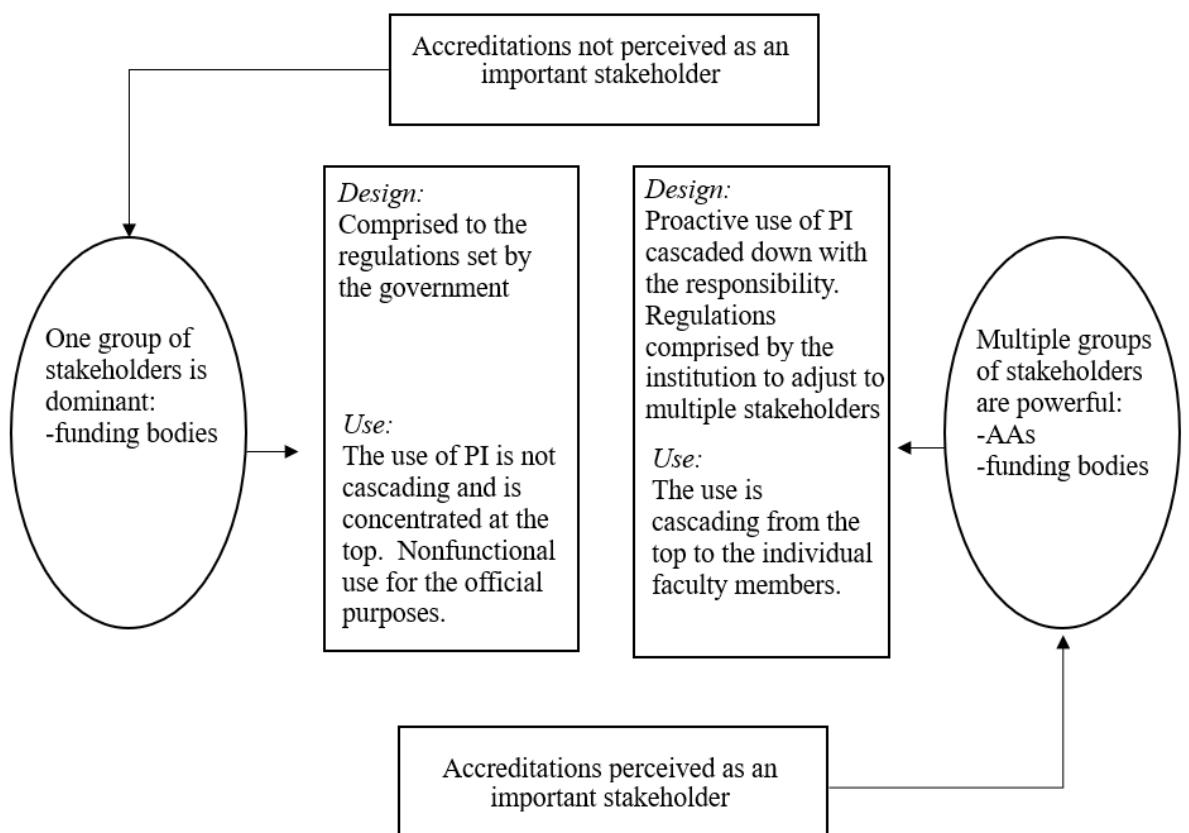
<i>Pressures/type of university</i>	Private	Public
Coercive	Low	High
Normative	High	Low

Mimetic	Moderate	Low
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Similar to the findings of Dattey *et al.* (2014), the present empirical evidence supports the idea that isomorphic pressures between public and private b-schools differ. Specifically, in the case of a public b-school, normative and mimetic pressures are lower. On the other hand, contrary to previous findings, for private b-schools, coercive pressure was not as high as for public ones.

At the first glance, technically, the two studied cases have similar PM systems. However, a closer look on how PM systems are used show some differences. Figure 2 presents a comparison of PM systems and PI use for the two studied cases.

Figure 2. PM system design and PI use in bsX and bsY – a comparison



In the case of bsY, a public b-school, where the state is considered as a dominant stakeholder, the PM system directly reflects the expectations set by the state evaluation agency (KEJN). The system is designed to collect information from the individual faculty members, which is then reported to the evaluation agency. The PI is collected and used at the central level,

and there is no evidence that the PM system is cascading down the b-school hierarchy. Indeed, empirical evidence shows the limited use of PI internally at lower organizational levels besides the occasional individual faculty decision made at the department level.

On the other hand, in the case of bsX, a private b-school, two layers of PM system can be observed. The two layers correspond to the two main stakeholders identified as the main influencers of the PM system design and PI use. On one hand, the PM system is designed to collect information for the purpose of national evaluation by KEJN, and in this dimension, the system is similar to that of bsY. However, the empirical analysis also provides evidence for an additional important dimension of the PM system. The PM system was designed to reflect the PI needs of AAs. The empirical analysis also documented that the PI cascades down and is used at different organizational levels, such as the top management, departmental, and individual levels. These findings are contrary to the arguments made by previous scholars. For example, Mimba *et al.* (2013) emphasized that in the case of a single powerful stakeholder, the PM system cascades down the organizational hierarchy.

Additionally, Mimba *et al.* (2013) argued that if there exist significant differences between stakeholders in goals and information interests, cascading would be limited. The presence of multiple stakeholders in the case of bsX has increased the cascading of PI use across organizational levels, although it should be emphasized that the information needs were rather aligned, despite the differences in goals.

It is worth noting that there may be various potential possible explanations related to the findings. First, there may be a motivational difference related to the reasons why b-schools seek accreditations. Casile and Davis-Blake (2002) and Dattey *et al.* (2014) suggest that the influence of external evaluation on private and public universities is different, and private schools are more likely to seek external evaluations (such as accreditations), whenever their potential economic impact is significant. As argued earlier, students' performance and interests are related to the quality of service provided by the university (Cret, 2011). Furthermore, accreditation is considered as a strong signal of quality by various stakeholders; private universities are likely to consider AAs as powerful stakeholders and design or modify the PM system and PI use based on the PI demands set by AAs.

Further, accreditation will have a higher impact on the PM system for universities that are competing for students against other schools that are also accredited (Casile and Blake, 2002). BsX's strategic aim is to be competitive in the international education market; thus, international accreditations have a greater impact on its PM system, compared to the case of bsY, which competes only locally (where accreditations were not considered important and

were largely ignored). Indeed, in the case of bsX, engaging in accreditation processes was an important strategic choice.

Since accreditation is considered an important part of the bsX strategy, it is possible that the school does not consider different PI interests that come from two powerful stakeholders as conflicting and competing, in the sense that the university needs to prioritize and select the PI that is going to be provided. The PM system in bsX is more likely to have two layers, namely, one that fulfills the needs of the traditionally local powerful stakeholder, and a second layer that satisfies the PI needs of AAs. This additional layer of the PM system can be considered as an additional dimension, wherein various elements can be added on top of or alongside each other (Kallio and Kallio, 2014; Hyndman *et al.*, 2014).

BsY, on the other hand, has always relied on government funding. Therefore, the new regulations imposed by these government agencies can be viewed as coercive pressure for change. Since funding is linked to performance, the b-school needed to design an efficient system for collecting the PI required by the government evaluation agency. The change in the PM system was intended to provide basic accounting of individual performance for reporting aggregated information to the national agencies. As a public b-school, bsY did not consider AA as an important element of its strategy, as its organizational and financial stability is secured by the funding agency. Therefore, seeking accreditations has more of a bandwagon effect (Hodge, 2010) than being a rational choice for competing in the international education market. For this reason, the PI needs of AAs are not considered equally important as those of the funding agencies, and bsY's priority is to fulfill the PI needs of their major provider of funds.

The type of accreditations that universities become involved with, may have an impact on the PM system. BsY has been seeking accreditation from lesser-known AAs, while BsX has always been looking for highly recognized, global accreditations (e.g. AACSB, EQUIS, AMBA) (Cooper *et al.*, 2014; Cret, 2011; Istileulova and Peljhan, 2013; Lejeune and Vas 2009; Lejeune, 2011). It is possible that the lack of inclusion of AAs as powerful stakeholders by bsY is related to the relatively lower power of local AAs. This finding can have an important implication for the management of these b-schools, especially in emerging economies and CEE countries, who are in the process of making a selection decision for appropriate accreditations for b-schools.

One additional aspect related to the impact of AAs on the university system may relate to the general experience that universities have with accreditation. BsX obtained its first international accreditation in the late 1990s, and since then, it has been redesigning the PM system to deliver the required PI. The evolution of accreditation standards is viewed in bsX as

a driver of change in the design of the PM system. Additionally, the maturity of the system has permitted the b-school to go beyond simple performance reporting for external purposes to focus on the motivational aspects of faculty management with the hope of increasing its performance in the future. This aspect of the new performance systems has been accentuated by many individual faculty members. The experience of bsY, however, is rather limited. It is likely that further changes in the PM system can be inevitable in terms of its efforts to maintain these accreditations, as it has recently received an accreditation from one of the global AAs.

6 Conclusions and Limitations

This study corroborates the previous research on the changes in PM system practices in HE. Previous research has pointed to the changes in PM practices in universities conditioned by state and market forces and the rise of managerialism and corporatization of PM practices at universities, in contrast with the ideas of a university community and collegial culture, which offers professional autonomy and freedom in setting research priorities (Kallio and Kallio, 2014). This study contributes to the literature by advancing our understanding of how different stakeholders can/do influence internal changes in the PM system, as well as in the use of PI not only in general terms, but also at different levels of a university hierarchy. In particular, the study points to the role of funding agencies and accreditation agencies as the key influencers of university PM systems.

This study makes important contributions to the literature. First, the changes in university PM systems due to the increased influence of AAs and other powerful external stakeholders were investigated, thereby contributing to the growing academic literature on PM systems. In particular, this study examines how powerful stakeholders can influence the design of the PM system and PI use. The study also documents how the PM system meets the PI demands of not only the main funding bodies but also AAs, and how the PI cascades down and is used at different organizational levels as a response to new demands. Neo-institutional theory was used to interpret the findings and point out the different dominating forces influencing the PM system design and PI use.

This study also provides valuable insights on the differences in the design and evolution of PM systems in public and private b-schools. Since funds for public universities predominantly come from the state, the PM system is designed to serve the information needs of this major stakeholder. Polish public universities do not regularly engage in international accreditation processes, and if they do, their action can be interpreted more as a bandwagon effect. In the case of private universities, however, they may see accreditation as an important

signal of quality and high reputation, indirectly leading to better funding opportunities. Therefore, the PM system is designed in a way that it is more likely to reflect the performance expectations and PI needs of the AAs.

Finally, this study considers a unique research setting. The focus was not on any traditional university in well-developed countries, which has already been widely researched, but rather two b-schools operating in CEE, and more specifically, in the Baltic Sea region. Globalization of education and the ensuing demographic changes are forcing universities from CEE to compete in the current saturated education market (Lejeune and Vas, 2009; Suspitsin, 2007). CEE b-schools engage in accreditations to gain legitimacy and signal their quality to attract more students (Casile and Davis-Blake, 2002; Istileulova and Peljhan, 2013; Tolbert, 1985). The increasing demand for quality research standards imposed by funding agencies as well as AAs is, therefore, a major driver of changes in the PM system. This study documents the process of adjustment of two b-schools to these exogenous demands, and analyses them from an organizational as well as an individual perspective. By analysing b-schools in Poland, the study provides valuable information about the country's higher education system and in a broader sense, in the CEE region.

The qualitative research methods allowed us to gather the opinions of the interviewees and thus provide important insights into the reality of PM systems and PI use. The findings are, therefore, relevant to university managers and decision makers at other b-schools operating in Poland and other CEE countries. The findings can also be useful for national and international evaluators to achieve greater insight into how universities' internal PM systems change in response to imposed national and international standards of performance.

Nevertheless, this research has certain limitations. Despite its advantages, the applicability of the two-case study method is limited, as it relates to only a small cluster of b-schools being studied. The restriction related to the number of interviews and the ability to collect other material can also be considered as a limitation. There is clear potential for cross-country and longitudinal studies on how PM systems are established and institutionalized in other environments.

References

- Agyemang, G. and Broadbent, J. (2015), "Management control systems and research management in universities", *Accounting, Auditing and Accountability Journal*, vol. 29 no. 7, pp. 1018–1046.

- Azhar, Z., Kamal, I and Rahman, A. (2009), "Managerial performance measures in management accounting practices of Malaysian institutions of higher learning", *Malaysian Accounting Review*, vol. 8 no. 1, pp. 37-61.
- Boelen, C. and Woollard, B. (2009), "Social accountability and accreditation: a new frontier for educational institutions", *Medical Education*, vol. 43 no. 9, pp. 887–894.
- Boitier, M. and Rivière, A. (2013), "Freedom and responsibility for French universities: from global steering to local management", *Accounting, Auditing & Accountability Journal*, vol. 26 no. 4, pp. 616–649.
- Brignall, S., and Modell, S. (2000), "An institutional perspective on performance measurement and management in the 'New Public Sector'", *Management Accounting Research*, vol. 11 no. 3, pp. 281-306.
- Brooks, R.L. (2005), "Measuring university quality," *The Review of Higher Education*, vol. 29, no.1, pp. 1–21.
- Burrell, G. and Morgan, G. (1979), *Sociological paradigms and organizational analysis*, Heinemann, London.
- Casani, F., Filippo, de, D., Garcia-Zorita, C. and Sanz- Casado, E. (2014), "Public versus private universities: assessment of research performance; case study of the Spanish university system", *Research Evaluation*, vol. 23 no. 1, pp. 48-61.
- Casile, M. and Davis-Blake, A. (2002), "When accreditation standards change: factors affecting differential responsiveness of public and private organizations", *Academy of Management Journal*, vol. 45 no. 1, pp. 180–195.
- Chua, W.F. (1986), "Radical developments in accounting thought", *The Accounting Review*, Vol. 61, no. 4, pp. 601-632.
- Cooper, S., Parkes, C., and Blewitt, J. (2014), "Can accreditation help a leopard change its spots?", *Accounting, Auditing & Accountability Journal*, vol. 27 no. 2, pp. 234–258.
- Cret, B. (2011), "Accreditations as local management tools", *Higher education*, vol. 61 no. 4, pp. 415–429.
- Dattey, K., Westerheijden, D. and Hofman, W.H. (2014), "Impact of accreditation on public and private universities: a comparative study", *Tertiary Education and Management*, vol. 20 no. 4, pp. 307-319.
- DiMaggio, P.J. and Powell, W.W. (1983), "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields", *American Sociological Review*, vol. 48 no. 2, pp. 147–160
- DiMaggio, P.J. and Powell, W.W. (1991), *The New Institutionalism in Organizational Analysis*, The University of Chicago Press, Chicago, IL.
- Dobbin, F., Sutton J.R., Meyer, J.W. and Scott, W. (1993), "Equal opportunity law and the construction of international labor markets", *American Journal of Sociology*, vol 104, no. 2, pp. 441-476.
- Dobija, D. and Hałas-Dej S. (2017), "Higher Education in Management: The Case of Poland" in: Dameron, S., Durand, T., *The Future of Management Education*, Palgrave Macmillan Ltd, Basingstoke, pp. 277-294
- Eisenhardt, K.M. (1989), "Building theories from case study research, Academy of Management", *The Academy of Management Review*, vol. 14 no. 3, pp. 532–550.
- Espeland, W.N. and Sauder, M. (2016), *Engines of anxiety: academic rankings, reputation, and accountability*, Russel Sage Foundation, New York, NY
- Floyd, C. (2007), "Know your competitor: Impact of for-profit colleges on higher education landscape", *New Directions for Higher Education*, vol. 140 no. 1, pp. 121-9.
- Gephart, R.P. (2004), "Qualitative research and the Academy of Management Journal", *Academy of Management Journal*, vol. 47 no. 4, pp. 454–462
- Glaser, B. G., and Strauss, A. L. (1967). The discovery of grounded theory: Strategies for

- qualitative research. Chicago: Aldine.
- Hodge, T. A. (2010). Accreditation of business schools. An explanatory multiple-case study of their motivations (Master thesis). Christchurch (New Zealand): University of Canterbury.
- Hyndman, N., Liguori, M., Meyer, R. E., Polzer, T., Rota, S. and Seiwald, J. (2014). “The translation and sedimentation of accounting reforms. A comparison of the UK, Austrian and Italian experiences”, *Critical Perspectives on Accounting*, vol. 25 no. 4-5, pp. 388–408.
- Istileulova, Y. and Peljhan, D. (2013), “How accreditation stimulates business school change: evidence from the commonwealth of independent states”, *Dynamic Relationships Journal*, May, vol. 2 no. 1, pp. 15–29.
- Kallio, K.M. and Kallio, T.J. (2014), “Management-by-results and performance measurement in universities – implications for work motivation”, *Studies in Higher Education*, vol. 39 no. 4, pp. 574–589.
- Lejeune, C. (2011), “Is continuous improvement through accreditation sustainable?: a capability-based view”, *Management Decision*, vol. 49 no. 9, pp. 1535–1548.
- Lejeune, C. and Vas, A. (2009), “Organizational culture and effectiveness in business schools: a test of the accreditation impact,” *Journal of Management Development*, vol. 28, no. 8, pp. 728–741.
- March, J.G and Olsen, J.P. (1989) *Rediscovering institutions: The organizational basis of politics*. Free Press, New York, NY.
- Martin-Sardesai, A., Irvine, H., Tooley, S., and Guthrie J. (2017), “Organizational change in an Australian University: Responses to a research assessment exercise, *The British Accounting Review*, vol. 49 no. 1, pp. 388–412.
- Merry, S. (2011), “Measuring the world: indicators, human rights, and global governance”, *Current Anthropology*, vol. 52 no. 3, pp. 83–95.
- Miles, M. B., and Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*, Sage Publications, Thousand Oaks, CA.
- Mimba, N.P.S.H., Helden, van J.G. and Tillema, S. (2013), “The design and use of performance Information in Indonesian local government under diverging stakeholder pressures”, *Public Administration and Development*, vol. 3 no. 1, pp. 15-28.
- Morest, V.S. (2009), “Accountability, accreditation, and continuous improvement: building a culture of evidence”, *New Directions for Institutional Research*, vol. 143 no. 3, pp. 17–27.
- Najeeb, A. (2013), “Institutional Perspectives in HRM and MNC Research: A review of Key Concepts”, *International Journal of Employment Studies*, vol. 21 no. 2, pp. 79-100.
- Orlikowski, W.J. and Baroudi, J.J. (1991), “Studying information technology in organizations: research approaches and assumptions”, *Information Systems Research*, Vol. 2 no. 1, pp. 1-28.
- Pauw, J. and Boselie, P. (2003), “Challenging ‘strategic HRM’ and the relevance of the institutional setting”, *Human Resource Management Journal*, vol. 13 no. 3, pp. 56–70
- Pettigrew, A.M. (1990), “Longitudinal Field Research on Change: Theory and Practice”, *Organization Science*, vol. 1 no. 3, pp. 267–292.
- Schriewer, J. (2009), “Rationalized Myths” in European Higher Education – The Construction and Diffusion of the Bologna System”, *European Education*, vol. 41 no. 2, pp. 31–51.
- Scott, W.R. (1987), “The adolescence of institutional theory”, *Administrative Science Quarterly*, vol. 32 no. 4, pp. 493-511.
- Scott, W.W (1995), *Institutions and Organizations*, Sage Publications, Thousand Oaks, CA.
- Shore, C. and Wright, S. (2015), “Audit culture revisited: ranking, rating and the reassembling of society”, *Current Anthropology*, vol. 56 no. 3, pp. 421–444.

- Stanfield, J.B., ed. (2012) *The profit motive in education: continuing the revolution*. The Institute of Economic Affairs in association with Profile Books Ltd, London.
- Strauss, A., and Corbin, J. (1998), *Basics of qualitative research: Procedures and techniques for developing grounded theory*, Sage Publications, Thousand Oaks, CA.
- Suspitsin, D. (2007), “Between the state and the market: Sources of sponsorship and legitimacy in Russian nonstate higher education,” in: Slantchev, S. and Levy, D.C (eds) *Private Higher Education in Post-Communist Europe. Issues in Higher Education*. Palgrave Macmillan, New York, NY.
- Teodoro, M. and Hughes, A. (2012), “Socializer or Signal? How Agency Accreditation Affects Organizational Culture”, *Public Administration Review*, vol. 77 no. 4, pp. 583- 591.
- ter Bogt, H. J. and Scapens, R.W. (2012). “Performance management in universities: Effects of the transition to more quantitative measurement systems”, *European Accounting Review*, vol. 21 no. 3, pp. 451–497.
- Thomson, J.D. (1967), *Organizations in action*, McGraw-Hill, New York, NY.
- Tillema, S., Mimba, S.H.N.P., and Helden, G.J. van, (2010), “The changing role of public sector performance Measurement in Less Developed Countries”, *Public Administration and Development*, vol. 3 no. 3, pp. 210-241.
- Tolbert, P.S. (1985) “Institutional environment and resource dependence: Source of administrative structure in institutions of higher education”, *Administrative Science Quarterly*, vol. 3 no. 1, pp. 1-13.
- Woodhouse, D. (2003), “Quality improvement through quality audit,” *Quality in Higher Education*, vol. 9 no. 2, pp. 133–40.
- Wright, S. (2009), “What counts? The skewing effects of research assessment systems”, *Nordisk Pedagogik/Journal of Nordic Educational Research*, vol. 29 no. 1, pp.18–33.
- Yin, R. K. (1994). *Case study research: Design and methods*. Sage Publications, Thousand Oaks, CA.

Appendices

Appendix 1. Archival and online data sources used

Archival data from bsX and bsY
List of archival and organizational documents analyzed
B-school regulations
Rector's directives
Minutes of Senate
Minutes of Rector's meetings
Accreditation reports
Committee meetings minutes
PowerPoint slides from Senate's meetings
Online Sources
The Polish Accreditation Committee rankings
Official b-school websites
EFMD website
AACSB website

Appendix 2. Overview of interviews

Data Sources		Duration
Total Interviews, N= 24		
bsX, N= 15		17h 17'
Position	Coded	Duration
Vice-Dean for Research	P1	1h 48'
Head of Department, Management	P2	50'
Head of Department, Marketing	P3	1h 30'
Head of Department, Strategy	P4	55'
Assistant Professor, Department of Social Sciences	P5	24'
Senior Lecturer, Department of Social Sciences	P6	49'
Dean	P7	46'
Full Professor in Governing Body	P8	1h 13'
Head of Department, HR	P9	1h 52'
Assistant Professor, Marketing	P10	1h 15'
Assistant Professor, Marketing	P11	1h 12'
Assistant Professor, Management	P12	52'
Assistant Professor, International Management	P13	1h 52'
Assistant Professor, Strategy	P14	1h 1'
Research Assistant, International Management	P15	1h 8'
bsY, N=9		10h 18'
Assistant Professor, Accounting	P16	30'
Senior Lecturer, Strategy	P17	40'
Senior Lecturer, Management	P18	1h 50'
Dean	P19	54'
Vice-Dean for Research	P20	38'
Head of Department, Management	P21	1h 50'
Head of Division, Management	P22	1h 30'
Associate Professor, Marketing	P23	1h 5'
Associate Professor, Marketing	P24	1h 21'

Appendix 3: Guidelines for the interviews

1. Describe the role of PI in performance management
2. Who uses PI in the university?
 - a. At the individual level
3. How is PI used?
 - a. At the university level
 - b. At the department level
 - c. At the individual level
4. The opinion on the willingness and interest in using PI
 - a. At the university level
 - b. At the department level
 - c. At the individual level
5. Can you name some determinants related to PI use?
6. Can you rank the determinants from the most important to least important?
7. In what way do the current HR practices ensure provision of accurate PI information?
Are there any control mechanisms ensuring the correctness of this information?
8. What is your opinion on the easiness of manipulation of PI?
 - a. At the university level
 - b. At the department level
 - c. At the individual level

Appendix 4. Emergence of categories (exemplary fragments of data)

META CATEGORIES	CATEGORIES - selected	CODES - selected	EMPIRICAL MATERIAL - illustrative quotations
Design of the PM system	assessment	research activities	P13: There are categories of scientific achievements. There's A0, A1, and the lower ones, but I wasn't interested in them. (...) And this A0 is about articles published in the best, top journals, these JCR-listed journals . And then there's the lower-rank ABS and ERIH , I think, but I'm not sure.
		rewards	P20: The new system does not guarantee that irrespective of your performance, you will get the salary bonus . So, not everyone was happy about it.
	stakeholders	international accreditations	P8: Accreditations have helped us a lot, apparently. That's because they as if force certain things.
		ministry	P16: Higher education institution parametrization is a very important element when it comes to sharing public funds, so they are taken full advantage of to boast on the international arena
		competition	
Use of the PI	institution	external reporting	P8: The pressure of the ministerial bureaucracy and accreditation agencies, among others, are all factors that favor it [PI use]. In order to produce relevant reports , you need to have information
		rankings	P12: The authorities are highly interested, because it has a substantial impact on the b-schools' rankings
	individual academics	self-assessment	P11: Everything has to be submitted, printed and signed, archeology. However, you are able to know what you have , what you still need, what else you can do.
Effects of the PM systems changes	positive outcomes	motivation	P13: (...) The financial rewards are certainly an incentive
	negative outcomes	lack of freedom	P15: (...) As an individual, I feel lost . Well, maybe not as an individual, but as a scientist. A scientist who is supposed to be independent, who feels that it's impossible to experiment because... it's not going to land them a publication in a JCR-listed journal.
		poor publications	P16: The consequences are that employees suddenly rush to get points for publishing, which means they publish not very 'publishable' works , so to speak, only to get these points, so they often rehash old ideas and recycle the same texts because it gives them points.