

Legitimating efforts in Performance Plans. Evidences on the thoroughness of disclosure in the Italian Higher Education setting

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Abstract

The aim of this paper is to understand what factors affect the thoroughness of the information provided by Italian Universities in their Performance Plans. The recent reforms that characterized the Italian Higher Education led a full revision of the administrative apparatus. It not only encompassed a switch from cash accounting to accrual accounting, but suddenly gained wider strategic relevance, as attention is also devoted to the coherence between planning activities and reporting outcomes in order to ensure transparency and broader accountability. Hence, drawing on the legitimacy theory, we conducted a panel analysis with fixed effects on data gathered through a meaning-oriented content analysis of 132 Plans. The findings show that, early transition to accrual accounting, the adoption of management accounting tools and geographical position influence the thoroughness of disclosure towards specific accountability and legitimacy wishes. The findings offer noteworthy contributions not limited to the academic debate, but valuable for policy makers and practitioners.

Keywords: Italian Universities, Performance Plans, disclosure, legitimacy, thoroughness

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1. Introduction

Over the last years a number of reforms has hardly impacted the Higher Education setting which has been subject to institutional pressures that led to the adoption of new accounting practices and performance measurement systems (Townley, 1997; Lapsley and Miller, 2004; Ter Bogt and Scapens, 2012). These issues assume special relevance in Italy, where pervasive regulatory transformations are taking place to assign increasing autonomy and responsibility to public Universities, making their governance and accounting systems more effective and accountable from a broader perspective.

In this context, an interesting matter pertains the change in the accounting system, which led from cash to accrual basis approach, and has also impacted management accounting systems, among which Performance Plans (PP).

These tools were introduced, for public administrations in general, and Universities in particular, with the Legislative Decree No 150/2009 (D'Alessio, 2012; Mussari and Sostero, 2014; Mussari *et al.*, 2015). The Plans, based on a three-years horizon, constitute vital elements for the formalisation of strategies in several critical areas and have been conceived to pursue accountability and transparency wishes. Extant literature has already stressed the manifold impacts that accounting systems in general, and PP in particular, actually imply for Universities in Italy (see Allini *et al.*, 2017; Aversano *et al.*, 2017; Paolini and Soverchia, 2017). In short, Performance Plans implementation is still in progress and their practical potential in pursuing systemic managerial efforts – essential due to the multifaceted performance of universities – is not fully expressed, with undeniable consequences in terms of accountability. Indeed, the disclosure contents of these documents are in essence discretionary, except for a synthetic mention of areas that would be useful to cover, leaving room for manoeuvre and the pursuit of various purposes not necessarily related to managerial and accountability needs (Ricci and Parnoffi, 2013).

On this regard, the theoretical perspective of the legitimacy can be useful to better understand this phenomenon. In short, legitimacy theory sees disclosure policies as a mean to constitute different strategies to influence the organisation's relationships with other parties (Cho and Patten, 2007; Deegan *et al.*, 2002). The literature frequently indicates disclosure strategies as governed by survival reasons to the detriment of a real and wider accountability.

This tendency opens up an overlooked discussion concerning the comprehension of the antecedents and outcomes of the disclosure divulged

(Tregidga *et al.*, 2014). Indeed, relatively scant attention is paid to the process and context of reporting. In contrast to the focus on the reports themselves (Tregidga *et al.*, 2012), more studies on '*what is said and what is not said*' and, in particular, '*how it is said*' is required.

Thus, in the framework of the legitimacy theory, the current paper aims to comprehend how Italian Universities divulge information through their PP, and what factors influence their choices.

Following Day and Woodward (2004) and Caldarelli *et al.*, (2012) the characteristics of disclosure are explored by looking at the degree of thoroughness. Thoroughness is understood as a qualifying characteristic of disclosure that is translucent and allows the reader to fully comprehend how and why certain dynamics take place within the organisation, and which legitimacy purposes are pursued.

This study is devoted to find out if contextual and institutional variables (i.e., early transition to accrual accounting system, reliance on management accounting tools, the internal control system (IC) and complexity of the University) are associated with the thoroughness of disclosure in PP.

The study – conducted on 132 Plans (considering the last two Plans available for each public university, and excluding the first plan issued to skip first time adoption bias) – uses a meaning-oriented content analysis to collect data to measure the thoroughness of disclosure. Independent variables were also collected through websites consultation.

Then, we performed a panel data analysis through fixed effects.

The results show that early transition to accrual accounting, the adoption of management accounting tools, the implementation of internal control systems and the geographical position impact the thoroughness of disclosure, favouring the pursue of specific accountability and legitimacy wishes. The robustness tests corroborate findings and allow for deeper reflections on the difficulties relating to the divide between strategic planning and its operationalisation in complex institutions, and the potential played by information flows and coordination mechanisms.

The analysis offers the chance for a twofold contribution to theory and practice.

Firstly, it expands the theoretical debate offering newer insights on how information is disclosed and the factors influencing disclosure behaviours towards specific accountability purposes, a neglected issue in general and above all in the higher education domain. Moreover, it advances extant literature specifically focusing on PP in Italian Universities (see Paolini and Soverchia, 2014; Allini *et al.*, 2017).

Secondly, it presents interesting practical and policy-making implications. Indeed, also in line with recent contributions (see Tieghi *et al.*, 2018), the Italian University system is progressively switching towards a broader managerial culture, and a more efficient management of resources in support of broader accountability wishes through recourse to holistic approaches. However, findings also signal that a long pathway expects Italian Universities to secure embeddedness of the new routines and their cultural acceptance. On this regard, the policy maker should pay effort in designing solutions to ease the substantive operationalisation of holistic systems, not yet fully achieved.

The remainder of the paper is organized as follows. The second describes the Italian setting. The third section shows the construct of the legitimacy theory and reviews literature to develop the hypotheses. The fourth section presents the research design, and the fifth summarizes the findings. Finally, the sixth section is devoted to concluding remarks.

2. The Italian setting

The Italian University system has recently faced massive changes due to Law No. 240/2010 and the Legislative Decree No. 18/2012. These norms led to a full revision of the administrative apparatus, to switch from a cash rationale to an accrual rationale, in force starting from 2015, but with early transition recommended by 2013. Notably, the reform is gaining strategic relevance, as attention is not only devoted to accrual accounting, but also focuses on the coherence between planning activities and reporting outcomes (Paolini and Soverchia, 2014; Mandanici, 2015), to ensure transparency and broader accountability.

To serve these aims, among other tools, the law introduced PP, (Legislative Decree No. 150/2009), to offer a bridge between the performance and the strategic and financial planning of the Universities. These are crucial to formalise the critical areas of intervention, the actions to take, the methods of measurement and evaluation of results, the parties responsible for the processes, the connection between the processes and, not least, the technical communication and information sharing within the University. However, despite their importance, still few researches examined their content and the rationale behind disclosure.

Cantele *et al.*, (2011) analysed the period 2007-2009 when these reports were not mandatory and before the massive reforms recently intervened. The paper shows scarce propensity of Italian universities to prepare such documents, and to regard them as strategic tools to achieve accountability. More

recently, Paolini and Soverchia (2015) examined planning behaviours of 20 universities, showing that the difficulties to set a “new” way to plan activities are grounded in the lack of awareness of the usefulness of the accounting tools.

Allini *et al.* (2017) investigated whether the information conveyed in PP drawn up by Italian universities are able to achieve increasing transparency. Their main findings show that Italian Universities still assign little strategic value to these tools, although several areas of improvement appear to emerge. Aversano *et al.* (2017) further corroborate the lack of strategic underlying value for performance measurement and management in Universities and highlight the need for more holistic perspectives to avoid these shortcomings. In line with these positions, Paolini and Soverchia (2017) analysed some papers published on *Management Control* with the aim to highlight progress and problems in the management and control of Italian universities. Their main results emphasized the difficult integration of information systems useful for control and decisions, so the study claimed for a more integrated view of operations and business processes within Italian universities.

This literature signals that more research on the triennial PP, which constitute vital tools for the formalisation of decisions and actions in several critical areas, is hardly needed due to the high degree of discretionary affecting their content and, arguably, their outcomes. This is precisely the case in which a transition towards NPM involves more ‘hands-on management’ (Hood, 1995, p. 97), and therefore organisations are under the control of professional managers who have substantial discretionary decision power (Ter Bogaert and Scapens, 2012). The wide autonomy of management as regards the descriptive information to be provided creates room for manoeuvre and allows the pursuit of alternative aims, not necessarily transparency and accountability.

3. Theoretical framework and hypotheses development

3.1. The legitimacy theory

The research takes the perspective of the legitimacy theory (Gray *et al.*, 1988) common to a number of studies focusing on the role of information and disclosure in the relationship(s) between organisations, the state, individuals, and groups (Gray *et al.*, 1995). Legitimacy theory is grounded in the idea that there is a social contract between the organisation and the society. It implies explicit and implicit expectations in relation to the organisation’s

activities and, in turn, spurs organisations to constantly seek to ensure that other parties perceive them as legitimate, i.e., that they are operating within the (constantly evolving) bounds and norms of their societies of reference (Suchman, 1995). Legitimacy—intended as the generalised perception that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995)—is a relative concept and is time- and place-specific. In underpinning a stakeholder-driven approach (Shepherd *et al.*, 2003; Drover *et al.*, 2014), it is understood according to its scope and content (Suchman, 1995). The most common types refer to the *regulative*, *normative* and *cognitive* legitimacy.

Regulative legitimacy concerns the propensity to undertake choices and behaviours in accordance with the legal and regulatory dictated. By contrast, *normative* legitimacy – also known as socio-political legitimacy – relates to the presence of certain managerial elements, especially with regard to the quality of the programming aspects (Zimmermann and Zeit, 2002). This is usually defined as the company's ability to reflect in its processes the so-called softer requirements advanced by key stakeholders. Finally, *cognitive* legitimacy is understood as the ability of the company to ensure that stakeholders have the opportunity to fully understand the structural elements of the organization (Pollack *et al.*, 2012). The higher the transparency of the actions, the higher the degree of understandability and, therefore, the smaller the uncertainty perceived by the actors (Shepherd *et al.*, 2003).

Legitimacy theory has been embraced by a number of accounting and reporting researchers (e.g., Brown and Deegan, 1998; Deegan and Gordon, 1996; Deegan and Rankin, 1996; Deegan *et al.*, 2002; Deegan *et al.*, 2000; Magness, 2006; Patten, 1992; 1995; Walden and Schwartz, 1997). In general, Legitimacy theory-informed research variously emphasise the role of reporting/disclosures in correcting any misunderstandings of organisational performance, influencing the publics' expectations of organisational performance, communicating improved performance, and distracting attention away from poor organisational performance.

Except for limited studies (e.g., Buhr, 2002; Milne and Patten, 2002; Mabus, 2005; O'Donovan, 2002; O'Dwyer, 2002), Legitimacy theory within accounting literature has been concerned largely with the reactive nature of organisational disclosure. Many studies of this kind tend to focus on the corporate attempt to (re)build or repair legitimacy, embracing the view that legitimacy is controllable by organisations (e.g., Deegan *et al.*, 2000; Patten, 1992; 2002; Allen and Caillouet, 1994; Elsbach and Sutton, 1992; Elsbach, 1994).

From the perspective of the legitimacy theory, disclosure policies are regarded as a mean to constitute different strategies to influence the organisation's relationships with other parties (Cho and Patten, 2007; Deegan *et al.*, 2002). e.g. to counter or offset negative news that are publicly available, to provide material to inform interested parties about previously unknown aspects of the business activities, to draw attention to the organisation's strengths, and to downplay information concerning negative implications of the activities (Lindblom, 1994; Dowling and Pfeffer, 1975). A dangerous aspect, however, is that the common misinterpretation of the breadth of the theory, leading to the conclusions cited above, usually leads to interpreting disclosure as a mere legitimization device and not as an accountability mechanism. The literature on legitimacy, in fact, showed that, frequently disclosure strategies are governed by survival reasons and mere profitability aims. This is clearly to the detriment of a real and wider accountability.

This constitutes a huge theoretical gap that needs to be addressed, especially by enlarging the empirical inquiry to take into proper account both antecedents and outcomes of the disclosure divulged (Tregidga *et al.*, 2014). Indeed, relatively scant attention is paid to the process and context of reporting, in contrast to the attention addressed to the reports themselves (Tregidga *et al.*, 2012), and, more research on what is said and what is not said and, in particular, 'how it is said,' is required.

To ascertain whether disclosure reaches only formal legitimization, it is worth understanding if it is used as a symbolic or a substantive technique.

Symbolic techniques do not reflect any real change in activities, while substantive techniques involve real material change in organisational goals, structures, and processes, or in socially institutionalised practices (Ashforth and Gibbs, 1990). They lead to a constant evolution of the practices and objectives that reflects the institutional and extra-institutional pressures to which the company is subject. On a closer inspection, it appears that regulatory legitimacy is connected to a symbolic posture inspired by the need to survive or to offer a certain image outside of the organisational boundaries. In contrast, the other two types seem to underlie a substantive posture – given the assumption of a constant review of the formulation of strategic objectives, the definition of structures and processes, as well as institutionalized procedures – thus ensuring transparency and broader accountability.

This perspective is valuable to interpret recent trends in mandatory disclosure that, over the last few years, have been progressively developed to satisfy increasing accountability demands in relation to Universities' performance. In particular, the paper embraces the approach suggested by Day and Woodward (2004) to assess whether disclosure allows full understanding of

organisational processes, the reasons why certain dynamics happen and their implications, or offer only a superficial picture of the organisation. The following sub-section builds the hypotheses considering the legitimacy theory and the features of Higher Education.

3.2. Research hypotheses

Over the last decades, the Higher Education setting worldwide has faced a massive change put forth at the regulatory level (e.g., Seeber *et al.*, 2015). The reforms favoured the efficient and effective use of resources, above all, in response to the call for greater cooperation between the State and the actors and accountability (Riccaboni and Galgani, 2010).

In this domain, performance management, with its emphasis on improved public oversight and expected positive effects, seemed the exact cure for what ailed the failing educational systems (Marchi, 2012; Macchioni *et al.*, 2014; Jacobsen and Saulz, 2016). This fostered reliance on accounting tools in Universities, to realise broader value creation processes and accountability wishes (Arcari, 2003; Lapsley and Miller, 2004; Seeber *et al.*, 2015).

According to some authors, the transition to accrual accounting system fits with the NPM, through the adoption of explicit quantitative performance measures and external audits (Hood 1995; Olson *et al.* 1998). In the wake of such transition some studies have addressed reporting issues of universities, focusing on its content and impact on accountability. Among these studies it is possible to recognise two opposite positions.

Some scholars (e.g., Carlin and Guthrie 2003; Gray and Haslam 1990; Connolly and Hyndman, 2006; Agasisti *et al.*, 2017) found that in certain contexts the transition to accrual accounting may well lead to symbolic changes, overoptimistic claims, and obfuscation of costs if it is not supported by a profound shift in managerial practices and behaviours. Others (e.g., Coy and Pratt 1998; Steccolini, 2004; Lapsley *et al.*, 2009) signal the crucial importance of fulfilling accountability through disclosure relying upon an accrual-based system.

It is worth noting that the effort that the accrual accounting transition implies for Universities in re-thinking their culture, processes and their information and communication flows (Dal Molin *et al.*, 2016; Gigli and Tieghi, 2017) can be regarded as a good premise to strengthen the ability to divulge substantive disclosure in the Performance Plans (Allini *et al.*, 2017). It implies a constant evolution of the practices and objectives of the organization, a constant review of the strategies, as well as routinized procedures. This

pervasive action, requiring high amounts of resources, prompts the organization's willingness to rely upon disclosure to influence its relationships with other parties (Cho and Patten, 2007; Deegan *et al.*, 2002) about previously unknown aspects of the business activities, to draw attention on organisational strengths (Lindblom, 1994; Dowling and Pfeffer, 1975). Thus, we hypothesise that:

Hp1 There is a positive relationship between early transition to the accrual accounting system by Universities and the thoroughness of disclosure in the Performance Plans.

The emphasis on the accounting potential for Higher Education has shifted to management accounting and management control. Within this domain, several researches have devoted attention to the role of management accounting in measuring individual department performance (Pendlebury and Alagabri 1997; Arnaboldi and Azzone 2004; Cugini and Favotto 2004). Other papers have examined performance management and performance measurement dynamics (Guthrie and Neumann, 2007). Yet, literature documents that the reliance on management accounting tools in university settings may give way to various conflicts, which may emerge, as per the Belgian Universities, on the occasion of the economic budget preparation, due to the ambiguity revolving around the concepts of revenue and cost (Christiaens and Wilemaker, 2003). Still, Zierdt (2009) examines the underlying advantages to the use of the responsibility-centred budgeting in promoting the best achievement of the strategic purposes, and more pronounced levels of accountability for two American universities. Melo *et al.* (2010), examining to what extent the introduction of performance management systems has affected the roles and influences of the key actors in the governance of universities in UK, show that in spite of a substantial increase in the measurement of performance in most areas, there is a lack of action, regarding individual performance, and that accounting tools have only limitedly altered accountability regimes. Hoque and Moll (2011) argue that in the experience of an Australian university, the programming system and the budgeting process, if not properly implemented, can have a negative impact on institutional legitimacy profiles. More recently, Ter Bogt and Scapens (2012) examining the performance measurement of Universities, through two case studies located in the UK and the Netherlands, stress a greater tendency to the use of quantitative judgmental systems to test the degree of efficiency of research and teaching activities. Guthrie and Neumann (2007) signal the emphasis on

the quantitative aspects in relation to the growing attention for economic and fiscal performance indicators.

In addition, Kallio and Kallio (2012) confirm the orientation by Finnish universities to use quantitative measures, which if not properly interpreted can generate a counter-productive effect on the motivational factor of internal stakeholders.

Notably, management accounting tools implementation is successful when takes on a strategic and long-term oriented role within the organisational domain (e.g., Guthrie *et al.*, 1999; Martù, 2013; Lapsley *et al.*, 2009). This implies systematic and holistic approaches, also encompassing reporting behaviours, paramount in the public sector, in general (Broadbent and Laughlin, 2009), and in Higher Education in particular (Parker, 2013; Agyemang and Broadbent, 2015). From the legitimacy perspective, this kind of effort prompts the search for recognition by other parties, as well as the willingness to draw attention on these strengths. Moreover, given that Universities increasingly worry for third mission and for recruiting more students and high level faculty, intended as survival means in the long term, a thorough disclosure allowing these stakeholders to better understand its potential is fundamental to achieve these aims (see Allini *et al.*, 2017). On these bases we hypothesise that:

Hp2a There is a positive relationship between the reliance on management accounting tools by Universities and the thoroughness of disclosure in the Performance Plans.

Hp2b There is a positive relationship between the reliance on internal control system by Universities and the thoroughness of disclosure in the Performance Plans.

The above-cited systematic approaches are not free from threats and obstacles, mainly because the introduction of accounting systems and logics may trigger resistances and conflicts within the organisations (Broadbent and Laughlin, 2013; Fiondella *et al.*, 2016). The real question pertains whether and how the change really permeates the routines of the institution, or is only played in parallel with the daily activities to formally answer to external pressures, such as the regulatory ones (see for instance Salvatore and Del Gesso, 2017). This may well become a matter of complexity that usually takes a double route in terms of organisational structure and the presence of powerful stakeholders, as per the case of the presence of a teaching hospital (Moggi *et al.*, 2015; Moggi, 2016; Allini *et al.*, 2017; Carbone *et al.*, 2007; Carbone *et*

al., 2008). In terms of legitimacy implications, increasing complexity may determine a symbolic disclosure effort, in order to downplay information concerning negative implications of the activities by revealing complex dynamics, to the detriment of the organisational survival (Lindblom, 1994; Dowling and Pfeffer, 1975). To the best of our knowledge these issues have not yet been explored in the Higher Education setting. On this basis, we hypothesise that:

Hp3 There is a negative relationship between the complexity of the University and the thoroughness of disclosure in the Performance Plans.

4. Research design

4.1. Measuring the dependent variable

To provide results, this paper employs a sample of reports consisting of the last two triennial Plans (2013-2015 and 2016-2018), available on the national Anti-Corruption Authority web-site, for each of the 66 Italian Public Universities. Total final observations are 132.

Indeed, the report is considered a useful tool to understand the intent of the organization (Ogden and Clarke, 2005; O'Keefe and Conway, 2008). Often disclosure studies (e.g., Cho e Patten, 2007; Deegan, *et al.* 2002; Magness, 2006), rely upon the quantity of information provided as a proxy to detect varying legitimacy perspectives. However, this paper shares the critical view of those studies (e.g. Parker, 1991; Tinker *et al.*, 1991) calling for more attention for the qualitative dimensions concerning the how and why questions surrounding the disclosure, due to the inability of simplistic counting models to fully catch the dimensions of accountability and legitimacy involved in the process.

Differently from Mazzara *et al.* (2010) who relied upon a quantitative content analysis to analyse the strategic plans of local government authorities in Italy, to build our dependent variable – namely, the thoroughness of disclosure in the PP (THRD) – we employ a meaning oriented content analysis (see Caldarelli *et al.*, 2013; Caldarelli *et al.*, 2012), carried out on Performance Plans. Indeed, the discretionary content of these plans allowed by regulation, that provides only a generic model (based on the guidelines proposed by the Commission for the evaluation, transparency, and integrity of public administrations, CIVIT, with the Resolution No 6/2013) leaves room for manoeuvre, and more effort in comprehending the underlying reasons of any reporting information is needed.

The meaning-oriented content analysis is usually applied to archival data due to its potential in revealing hidden or unintended meanings and to ease the interpretation of textual data (Krippendorf, 2004; Weber 1990; Denscombe, 1998; Smith and Taffler 2000). Despite its relevance, this method is not free from critiques in relation to its claimed subjectivity which renders some reliability procedures an essential premise (Linsley and Shrives, 2006). Merkl-Davies et al. (2011) and Vourvachis and Woodward (2015) in this regard clarify that the meaning-oriented content analysis approaches (likewise the critical text analysis) admit the ontological subjectivity to capture the real meaning and interpretations of the disclosure. However, the qualitative and subjective nature makes the inclusion of certain coding and validation procedures essential.

Thus, given that our dependent variable is *the thoroughness of disclosure in the Performance Plans*, which is a theoretical construct, a coding strategy was preliminary agreed among three researchers to ensure reliability. More specifically, to achieve a coding model to guide researchers in examining the reports, several categories of information were elaborated in accordance with the suggestions of the CIVIT. Following these recommendations, and in line with Allini *et al.* (2017), the Plans were analysed to ascertain whether information on 11 relevant areas (i.e. the improvement of institutional arrangements, the improvement of organizational models, the improvement of human resources management, the internationalization enhancement, the improvement of research, the improvement of teaching, the real estate management, the improvement of customer satisfaction, improvement of service, transparency and corruption prevention) was provided.

For each of these 11 areas, the first step was to assess the existence of information and if disclosure covered the strategic, operational and process domain, according to the 10 items listed below in table 1 (3 items for the strategic domain; 3 items for the operational domain and 4 items for the process domain). The researchers verified whether the information had a formal or a substantive significance assigning a dummy of 0 and 1, respectively, thus achieving a variable score of our dependent variable ranging from 0 and 110.

Gray *et al.* (1995) show that it is necessary to identify robust criteria for discriminating the categories of symbolic disclosure (i.e. formal, stretched out to achieve the objectives of regulative legitimacy) and substantial (i.e., aimed at pursuing broader intents of normative or cognitive legitimacy and, therefore, of greater accountability).

Tab. 1 – Dependent variable - Detected items of Disclosure in Performance Plans

| <i>STRATEGIC DOMAIN (SD)</i> |
|--------------------------------|
| Strategic goals |
| Strategic targets |
| Strategic indicators |
| <i>OPERATIONAL DOMAIN (OD)</i> |
| Operational goals |
| Operational targets |
| Operational indicators |
| <i>PROCESS DOMAIN (PD)</i> |
| Individuals involved |
| Information flows |
| Timeline |
| Monitoring activities |

Source: Own elaboration

Thus, the paper embraces the approach suggested by Day and Woodward (2004). In detail, these authors believe that the symbolic disclosure (the formal one) is essentially documented when a particular aspect – not limited to the improvement of institutional arrangements – is mentioned in the plan but not accompanied by reports that enable an understanding of the different actions in the most wider context of the corporate performance (e.g., the reasons which prompted any changes, the strategic and operating objectives, the impact on results and applications, how to implement the changes or monitoring activities undertaken).

Differently, the disclosure is regarded as substantive when at least one of the two following parameters is achieved: existence of detailed explanations of the mechanisms and/or strategies driving actions, and presence of clarification in relation to the actions taken. These aspects are considered important as they lead to a translucent disclosure that allows the reader to fully comprehend how and why certain dynamics take place within the organisation.

The consistency of the coding and interpretation of texts was verified relying upon a sample of 14 plans randomly extracted and analysed by three independent researchers working on the same documents. To measure the robustness of the coding two tests were carried out: the Scott Π index and the Bhapkar test (Milne and Adler 1999; Beattie *et al.*, 2004). By considering the responses of the researchers pairwise, we calculated mean values of inter-rater reliability Π Scott of 0.87 with values included in the range of 0.80 to 0.90. A further analysis of the coherence of the coding, which considered the

simultaneous actions of the three researchers, was carried out using Bhapkar's (1966) test. Bhapkar's test checks for marginal homogeneity for all categories simultaneously. For all the characteristics considered, the statistical outcome was not significant (considering a threshold of 0.1 for an I-type test error). Given that both tests yielded positive results we conclude that the coding of the three researchers was concordant. We included the pilot Plans in the analysis to avoid a reduction in the number of examined reports.

4.2. Measuring independent and control variables

The independent variables were collected through websites consultation, and were measured as follows. Early transition to accrual accounting system (AA) is measured by a dummy variable (1 if it was engaged before 2015, 0 otherwise).

Substantive reliance on other management accounting tools (MA) is captured, similarly to Paolini and Soverchia (2015), by considering whether the University has adopted an accrual budgetary system and/or a cost accounting system. In addition to the content of the Plan we also searched on the University website to asses if the institution examined adopted these tools, explaining how and why. Thus, we employed a dummy variable coded 1 in the affirmative case, 0 otherwise. Likewise, the same approach guided us in the assessment of the substantive reference to the internal control system (IC). In particular, we measured this circumstance through a dummy variable (1 if there is such system, 0 otherwise). Lastly, complexity of the University (C) has been proxy by the presence of a teaching hospital (1 if yes, 0 otherwise), following the extant cited literature.

Control variables are also included based on the existing studies on disclosure and accountability. Firm size is important because larger organizations are expected to provide higher disclosures as they attract greater scrutiny. We proxy size relying upon the official classification provided by the Ministry of University (which is based on the average number of students), coding 1 for big size and 0 otherwise (Size). Yet, the socio and cultural backgrounds related to the territorial context in which the organization works represents another important aspect, since few previous studies documented (Biondi *et al.*, 2015) the existence of a relation between accountability and the territorial features. For the territorial background (Loc) we looked at the geographical location of the organization (1 if North, 0 otherwise).

4.3. Method

The paper relies upon the following panel data analysis regression model:

$$THRD = \alpha + \beta_1 AA + \beta_2 MA + \beta_3 IC + \beta_4 C + \beta_5 Size + \beta_6 Loc + \varepsilon \quad (a)$$

A preliminary step of the analysis involved the Shapiro-Wilk test and the Breusch-Pagan test, that are all statistically significant (untabulated).

An explanation of this procedure follows. Firstly, we verified whether a fixed or random effects model would be more appropriate for our dataset. A fixed effects model examines the group differences in intercepts, assuming the same slopes and constant variance across firms. A random effects model estimates variance components for groups or times and errors, assuming the same intercepts and slopes. Thus, to evaluate the significance level between the two estimators, we used the STATA software and conducted the Hausman specification test, which supported the validity of fixed effects regression. We performed a Breusch-Pagan test to find out whether there was a heteroschedasticity problem in our sample data.

The (untabulated) results indicated that this problem does not exist.

5. Findings

5.1. Descriptive statistics

The dependent variable (THRD) displays a minimum score of 0 and a maximum of 110. Its standard deviation is 24.49, while its mean is 51.62. The mean of 0.71 for AA indicates that almost 71% of Universities opted for an early transition to the accrual accounting system. The substantive reliance on management accounting tools (MA) and the substantive reference to the internal control system (IC) show that 42% and 41% of Universities, respectively, adopted these tools. Referring to the complexity, the majority of Universities has a teaching hospital (57%). Lastly, the mean for size is 0.42, while Loc has a mean of 0.35.

The dependent variable is significantly and positively correlated with the substantive reliance on management accounting tools (MA) and the substantive reference to the internal control system (IC), while it is negatively correlated with the geographical position (Loc).

We provide an additional Pearson correlation to verify whether each of the three domains (strategic, operational and process one) composing the

overall disclosure indexes are correlated each other. (See Table 2, 3 and 4 in: www.sidrea.it/performance-plans-higher-education).

Both strategic and operational domains are highly correlated (52%) and this ratio is statistically significant at 1% level. Similarly, for strategic and process domains (54% with p-value 1%).

5.2. Regression results and discussion

The findings document that the thoroughness of disclosure (THRD) is positively although weakly associated with the early transition to accrual accounting system (AA), as it is statistically significant at 10%. The transition to accrual accounting marginally influences the thoroughness of disclosure provided in the Performance Plans, thus marginally confirming Hp1 (See Table 5 in: www.sidrea.it/performance-plans-higher-education).

A possible explanation is that the accrual system is still proving their potential within the setting investigated and is not yet routinized and culturally accepted.

Instead, Hp2 is strongly confirmed showing that the adoption of management accounting tools (MA) positively affects the thoroughness of disclosure, with a statistical significance of 5%. These findings suggest that although further progresses are desirable, Italian Universities are moving towards substantial legitimacy aspirations. These institutions are still affected by quickness and reputational exigencies, but they are increasingly abandoning mere formal compliance behaviours being more committed to divulge information that mirror the changes of the routines outside the organisational boundaries.

Focusing on Hp3, considering the strongly positive association between the thoroughness of the disclosure and the reference to the internal control system (IC), we can argue that there is a rising strategic and long-term orientation ascribed to the Plans, that further reinforces the tendency towards substantive legitimacy contend as per Hp1 and Hp2.

In this regard, it is worth noting that the internal control system valuation for Universities lies in their potential to be relied upon as tools aimed to dialogically share the long term strategic expectations throughout the organization, above all for what concerns people not familiar with a subject area such as accounting and finance. Indeed, the above commented complexity of the setting can highly benefit from an effort to look at strategies and processes and to redefine the boundaries of the actions and the information flows. Clearly, such an effort comes before the ability to embed accrual

accounting and management accounting tools. It helps to increase the transparency inside and outside the University and can be understood also by looking at the commitment for recognition by other parties, as well as the willingness to draw attention on the internal strengths, also through the Performance Plans.

Yet, other important implications derive from Hp4. In fact, bearing in mind that it is difficult to capture the effects played by complexity on the dynamics of change addressed in this study, contrarily to the expectations, it does not influence the thoroughness of disclosure in Performance Plans. However, this result should be regarded considering that the thoroughness of disclosure has been calculated as an overall score for the Plans, with no distinctive regard for the strategic, operational and process domains.

On the contrary, complexity may well determine variations in the last two items. Thus, as the following sub-section explains, it is interesting to deepen this issue.

Looking at control variables, only the geographic location of Universities (Loc) is statistically significant (p-value 5%), and shows a negative relationship with the thoroughness of disclosure. This indicates that Southern Universities devote greater effort in divulging substantive information through the Performance Plans, because they have a recovery legitimacy exigency, and are willing to disseminate their strategies and plans to demonstrate their high competitiveness and attractiveness, in order to engage the stakeholders.

5.3. Robustness tests

To further reinforce the analysis, we performed different sensitivity tests to confirm our results and to deepen the comprehension of the factors influencing the thoroughness of the disclosure divulged by Italian universities in their Performance Plans. As briefly commented above, our disclosure index (THRD) has been calculated encompassing all the items of information provided in the Performance Plans (see table 1) and relating to the strategic domain (SD), the operational domain (OD) and the process domain (PD). Despite the relevance of the overall index and the interesting issues emerged, we now rely upon three new disclosure indexes based on information relating to each of the above-cited domains, and regarding them separately as our new three dependent variables,

The new equations follow:

$$SD = \alpha + \beta_1 AA + \beta_2 MA + \beta_3 IC + \beta_4 C + \beta_5 Size + \beta_6 Loc + \varepsilon \quad (b)$$

$$OD = \alpha + \beta_1 AA + \beta_2 MA + \beta_3 IC + \beta_4 C + \beta_5 Size + \beta_6 Loc + \varepsilon \quad (c)$$

$$PD = \alpha + \beta_1 AA + \beta_2 MA + \beta_3 IC + \beta_4 C + \beta_5 Size + \beta_6 Loc + \varepsilon \quad (d)$$

The independent variables have been already explained. Results are provided in Table 6 (www.sidrea.it/performance-plans-higher-education).

Model [b] reported in Table 6 shows that the strategic domain disclosure index (SD) is strongly and positively associated with the internal control system (IC), statistically significant at 1% level, while it is negatively associated with the geographic location (Loc), statistically relevant at 1% level, thus confirming the results of the general model [a].

Model [c] shows that the operational domain disclosure index is negatively affected by complexity (C), statistically significant at 1% level. The rejection of the third hypothesis in model [a] and its acceptance in model [c] is quite interesting, as it shows that complexity matters only for the information related to the operational domain, that is when there is the need to translate the strategies into actions. It reveals that universities are still facing problems in relation to the routinisation of the new logic, partially affecting the process of change.

Lastly, in model [d], the process domain disclosure index (PD) is strongly and positively associated with the early transition to accrual accounting system (AA), the substantive reliance on management accounting tools (MA) and the substantive reference to the internal control system (IC), the presence of a teaching hospital (C), all statistically significant at 1% level. Notably, while complexity negatively influences the disclosure on operational issues, it positively affects information on the process domain. This can be positively evaluated as it can be argued that the universities are aware of the problems relating to complexity in terms of operationalisation of the strategies, and that they try to cope with these questions reinforcing the design (and disclosure) of information flows, responsibilities, monitoring, and co-ordination mechanisms. The geographic location (Loc) adversely affects each dependent variable, confirming our aforementioned main results.

6. Concluding remarks

This paper moved from the awareness of the huge reform process that has challenged Higher Education settings over the last years. In the wake of the New Public Management (NPM) and the rising accountability pressures (Olsson *et al.*, 1998) Universities have been subject to institutional anxieties that led to the adoption of new accounting practices and performance measurement systems (e.g. Townley, 1997; Lapsley and Miller, 2004; Ter Bogt and Scapens, 2012). These issues assume special relevance in Italy, where this massive transition consisted of pervasive regulatory transformations from the triple perspective of teaching, research, and third mission, encompassing the social and environmental dimensions, and their impact (Borgonovi, 2004). These changes, among other revolutions, also affected the content and the implications of the Performance Plans introduced with the Legislative Decree No 150/2009 (D'Alessio, 2012; Mussari and Sostero, 2014; Mussari *et al.*, 2015). The wide autonomy as regards the descriptive information to be provided in these plans creates considerable room for manoeuvre and it is likely to allow the pursuit of different purposes by University's governing bodies, not necessarily related to those managerial and accountability needs that they are supposed to satisfy and constituting the ground floor of the reform.

The comprehension of the driving logic behind the disclosure divulged by universities potentially allow us to better understand the landscape of the on-going changes, also in terms of what has been done, what should be done, and implications for practice and policy makers.

On this ground, adopting the framework of the legitimacy theory, the aim of the paper was to detect what the factors affecting the degree of thoroughness of the information divulged through the PP prepared by Italian Universities are.

The study – conducted on 132 Plans – used a meaning oriented content analysis to collect data to measure the thoroughness of disclosure, and employed several independent variables collected through websites consultation. We performed a panel data analysis with fixed effects.

The results show that early transition to accrual accounting, the adoption of management accounting tools, the implementation of an internal control systems and the geographical position variously impact the thoroughness of disclosure, favouring the pursue of specific accountability and legitimacy wishes. The robustness tests corroborate these findings and allow for deeper

reflections on the difficulties relating to the divide between strategic planning and its operationalisation in complex institutions, and the potential played by information flows and coordination mechanisms.

The paper advances extant literature (Paolini and Soverchia, 2015; Allini *et al.*, 2017) showing that there is an on-going learning process manifested in a progressive improvement of Italian Universities disclosure behaviours, to be intended as an aspiration for substantive legitimacy. The Italian universities are now more aware of the issues surrounding the reforms and perceive their importance to achieve a better performance, broadly conceived. Thus, they are slowly abandoning compliance efforts in favour of substantive acceptance of the new logics.

The results shed light on the increasing tendency to recognise the importance of holistic approaches and the commitment to coordination needs among many tools. Clearly, the process of change related to the implementation and adoption of new accounting approaches seems to provide some benefits to foster transparency. However, from a practical perspective, Universities have still a long pathway to be done towards embeddedness of the new routines and their cultural acceptance.

In the end, despite these positive insights, it is worth noting that some questions, still need to be faced. The reference is to the need for broader operational efforts. The analysis argues that the policy maker should pay more effort in designing any solutions to ease such (substantive) operationalisation, not yet fully achieved.

Clearly, the paper is not free from limitations that possibly open future reflections and advancements. First, it could be interesting to enlarge the focus to include private universities in order to assess whether the differing politics and discourses featuring the private regimes could exert influence on disclosure choices. Secondly, it could be interesting to expand the analysis to include different reports and to ascertain whether Universities divulge information in a systematic effort. Thirdly, it could be useful to embrace a mixed-method approach employing survey and/or interviews so as to mitigate subjectivity in the interpretation of disclosure and to investigate more in deeper the real effort of universities to look at holistic performance management systems (only limitedly catch through dummy variables in the current study).

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