

# Integrated Performance Plans in Higher Education as means of accounting change. Insights into the Italian context

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## Abstract

This study aims to understand whether the disclosure provided by the Integrated Performance Plans (IPPs) issued by Italian State Universities is substantive or formal. In particular, this research, using the interpretative lens of Middle Range Theory (MRT) by Habermas, investigates the level of interrelationship that exists between the different sections of the IPP (strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance) and it verifies the degree of disclosure thoroughness contained in these different sections. Analysing a sample composed by the last IPP published by 66 Italian Universities and adopting a meaning-oriented content analysis, final results show that although the findings show a generally positive level of information, in the preparation of the Plans a prevalent attitude of formal compliance with the law seems to persist. As the meaning-oriented content analysis has shown, in most cases disclosure is used by Italian universities for essentially symbolic purposes. 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. Secondly, it presents interesting practical and policy-making implications, suggesting them to pay effort in designing solutions to ease the substantive operationalization of holistic systems, not fully achieved yet.

**Keywords:** Universities, Integrated Performance Plans, Middle Range Theory, Meaning Oriented Content Analysis.

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## 1. Introduction

Since 2013, the system for evaluating the performance of universities has been entrusted to the National Evaluation Agency of the University System (i.e. ANVUR) which prepares the guidelines in terms of integration with the strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance.

The recent reforms that characterized the Italian Higher Education led a full revision of the administrative apparatus of these organizations (D'Alesio, 2012; Mussari and Sostero, 2014; Mussari *et al.*, 2015). Indeed, the transition to accrual accounting and the gradual start-up of the analytical accounting have been creating an environment conducive to progressive convergence with performance management (Ricci and Parnoffi, 2013).

Furthermore, Universities must comply with manifold requirements, both in terms of data transmission and production of management documentation, which develop over many dimensions, from the most general strategic and financial level to those more operational, such as the needs for personnel assessment, training, procurement, building development and maintenance, anti-corruption and performance (ANVUR, 2018). Due to the large number of documents, instead of focusing on the substantive aspects, Universities may well tend to emphasize the compliance side at the cost of a disclosure truly capable to divulge elements connected to the systematic functioning, effects and impacts of the measures undertaken.

For these reasons, the National Evaluation Agency of the University System has indicated the Integrated Performance Plans (IPPs) as useful tools to drive the implementation of strategic priorities in coherence with the operational aspects and initiatives aimed at improving the effectiveness and efficiency of the Universities' performance management systems (PMS). However, these tools still have to prove their ability to convey a full rethinking of the Universities' approach to the changes that nowadays influence their performance and accountability in its broadest sense. From this perspective, the current paper argues that it is necessary to address these issues by bearing in mind that the reinterpretation of the accounting as a social practice permeated by exogenous and endogenous conditions becomes of absolute importance (Miller, 1994). Hence, in this paper we adopt the Broadbent and Laughlin's Middle Range Theory (MRT) as a theoretical framework useful to understand whether and how universities rely upon IPP as tools useful to dialogically convey a profound change in their practises, or as a mere exercise of compliance with strict external and financial accountability aims.

This study – conducted examining the last IPP published by 66 Italian Universities – uses a meaning-oriented content analysis to assess the thoroughness of the disclosure and to understand if this is substantive or formal (Ter Bogt and Scapens, 2012). 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). Subsequently, descriptive statistics will be applied to the disclosure categories identified and a Chi-square association index together with a Principle Component Analysis (PCA) will be developed. The purpose of the analysis is to demonstrate empirically that an association exists between the different elements (integration with the strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance) that build the Integrated Performance Plans.

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 IPP in Italian Universities (see Paolini and Soverchia, 2014; Allini *et al.*, 2019). 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. On this regard, the policy makers should pay effort in designing solutions to ease the substantive operationalization of holistic systems, not fully achieved yet.

Overall, the paper is structured as follow: the second section deals with the literature review and research questions; the third section regards the theoretical framework; sections four and five refer to the research design and results, respectively; lastly, the conclusions are formulated in section six.

## 2. Literature review and research questions

This section offers a brief review of the pressures that have affected Universities over the last years, to provide some essential coordinates and to favour, therefore, the understanding of the theoretical framework embraced and of the empirical analysis that will be subsequently proposed. From this

perspective, it is necessary to reiterate that the reform process taking place in Italy and forming the focus of the current paper must be interpreted in a broader framework of interventions that have involved the Higher Education sector at the international level, sharing an emphasis on the innovation of accounting systems, which is not free from the risks of mere formal application (Agasisti and Catalano, 2013; Kurunmaki *et al.*, 2003; Hood and Peters, 2004). Although the changes taking place are numerous and of various kinds (Salvatore and Del Gesso, 2017), management accounting issues are assuming a crucial relevance and are still only partially explored (Tieghi *et al.*, 2018; Marchi, 2015; Parker, 2008). The debate on this topic is thriving and varied, although commonly oriented towards the recognition of the strategic value management accounting changes to support short and long-term decision-making processes and supporting the absolute need for a holistic approach to the issues mentioned above (Guthrie *et al.*, 1999; Marti, 2013; Lapsley *et al.*, 2009; Martin-Sardesai *et al.*, 2017).

At the international level, the literature indicates that the main problems refer to the conflicts emerging on several occasions such as, for example, those concerning resource planning, denoting among the main causes of hostility the conceptual ambiguities connected to the declination of the economic logic in a complex and multifaceted context like that presented by the university (Christiaens and De Wielemaker, 2003). Indeed, such conflicts should be interpreted taking into account the fact that, like most studies focused on the fields of Education clarify, the ways through which power and politics interpret the needs of accountability, reflecting them in more or less pervasive initiatives of change, including or not including certain relevant actors, still represent thorny topics at the theoretical and practical level, characterized by a response that is anything but unambiguous (Broadbent, 1992). In this regard, it is worth noting that in many European countries the reform process, albeit a harbinger of numerous opportunities for universities, has at the same time placed such institutions in the face of managerial challenges of not simple resolution. Recent research highlights the risk of unwanted consequences, especially regarding the evaluation processes of individual researchers (ter Bogt and Scapens, 2012). Idiosyncrasies in evaluation systems, targets and output considered have progressively affected British universities (ter Bogt and Scapens, 2012) and Netherlands (Sousa *et al.*, 2010; ter Bogt and Scapens, 2012) Sweden (Pettersen, 2014) and Finland (Kallio *et al.*, 2016). In addition, as for Austria new reporting procedures were elaborated, in order to better monitor intellectual capital (Leitner, 2004). The common view emerging from these studies is that although various efforts have been

paid to improve performance evaluation, there is a high degree of inhomogeneity, still many lacks and overlaps, and the lack of a shared and commonly understood control culture that goes beyond coercive perceptions. Thus, any attempt to introduce performance evaluation measures is likely to lose its strategic breadth being perceived as an exercise of force and compliance.

In the current paper we refer to the new strategic needs and to the connected needs of professionalism and competences able to reconstruct and reduce to an *unicum* the multiple instances coming from different salient actors, on which political and power factors insist at different levels and with varying degrees of intensity, and that are impacted by contextual elements, conflicting cultural schemes and aspects of organizational, relational and regulatory complexity. Consistently, there is now a consolidated awareness of the fact that a different combination of the aforementioned elements may configure different responses (Broadbent and Guthrie, 1992; Broadbent and Guthrie, 2008), in a changing composition of additional and complementary forces. However, a systematic understanding of this composition of forces and of the consequent effects is still unrealized for what concerns the university field, where instead this gap is even more serious in light of the absolutely preeminent role that management accounting systems assumed over time. Such systems have been implemented in an atmosphere of urgency and in a climate of political short-termism accompanied by poor planning of actions, little involvement, few resources and lack of change agents able to promote possible innovations, therefore without taking care of the specificities of the university and without observing the systemic impacts of the aforementioned dimensions. This kind of approaches are likely to produce deep fractures, both internal to the institution and between the institution and the territory, undermining the legitimacy of the organization and destroying any purpose of accountability (Moll and Hoque, 2011). Instead, literature unanimously contends that the advantages of management accounting changes in universities lie upon the careful consideration of the necessary flexibility and multidimensionality, especially in terms of the ability to pursue strategic objectives in a more effective and efficient manner as well as to achieve greater accountability (Zierdt, 2009). This literature indicates that a decisive role in the success achieved during the change can be attributed to the virtuous synergies that eventually arise from political and power dynamics that favour the acceptance of the new course, and facilitated in this task by dimensions of culture and contexts characterized by degrees of greater openness and decreasing levels of corporate and relational complexity

(Agyemang and Broadbent, 2015; Martin-Sardesai *et al.*, 2017). More specifically, a large group of scholars devoted themselves to the analysis and understanding of the impacts deriving from the aforementioned interventions, focusing purely on measurement issues.

The results of this research have shown that it is possible to find a growing recourse to quantitative assessment and evaluation systems to verify the university performance related to research and teaching activities and, more generally, a tendency to resort to increasingly complex systems based on quantification mechanisms. This literature warns against the risk of considering the judgment that emerges after these assessments as objective and incontrovertible, which, if not correctly interpreted can generate a counterproductive effect on the motivational factor of internal stakeholders on the one hand, and a general climate of distrust on the part of the external stakeholders, on the other (Ter Bogt and Scapens, 2012; Kallio and Kallio, 2014). Therefore, there is a risk of serving “hidden” political goals and producing negative consequences in terms of ideological-cultural conflicts and increased complexity.

The reflections set out so far with reference to the international debate find comfort even in the copious national literature.

Focusing on the period prior to the 2010 reform, it is possible to highlight that on the programming front a limited propensity of the universities was found to recognize it as a strategic orientation function or to interpret it as a mechanism of accountability towards a large group of stakeholders (Sargiacomo, 2002; Cantele *et al.*, 2011).

More recently, instead, we identify a “new” way to plan activities and gain awareness of the potential usefulness of the management accounting tools available, which despite the positive note is configured as a path still in progress (Paolini and Soverchia, 2014; Allini *et al.*, 2019).

Thus, given the epochal on-going reform process and the inconclusive debate on the management accounting role this paper focuses precisely on this theme, examining in particular the content and characteristics of the information conveyed in the IPPs.

These tools although being highly regulated in terms of disclosure requirements and formats to be followed, leave room for discretion in terms of thoroughness and willingness to convey a complete set of information enabling the full assessment of process, connections and relationship between the different dimensions of analysis. This is likely to impact on the type of accountability that Universities are able (and willing) to pursue. It also raises some questions about the chance that the IPPs can actually achieve the scopes for what they were introduced.

On this basis, we formulate the following research questions:

*RQ<sub>1</sub>: Are the different sections of the IPPs related to each other?*

*RQ<sub>2</sub>: Are the individual sections (i.e. strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance) of the IPPs able to offer a thorough information on Universities' processes?*

### **3. Theoretical framework**

The current paper relies upon the theoretical framework of the Middle Range Theory (MRT), proposed by Jane Broadbent and Richard Laughlin (2013), which represents an extension of the philosophical approach of communicative action developed by the German philosopher and sociologist Jurgen Habermas (1987). For the purposes of the study, in the awareness of a process of reform which, although continuous, is far from being understood, it is useful to introduce the theoretical conceptualization of transformational processes, to provide an interpretative framework to be used to conduct the empirical analysis. The transformational processes, as explained in the main accounting change literature, represent profound organizational changes which, through the proposal and implementation of new tools and techniques, aspire to modify the corporate structures at every level, laying the foundations for the formation of a new, and possibly reinforced, corporate culture.

The MRT allows to extensively interpret the aforementioned transformational processes by providing useful coordinates to understand the synergic effects of a large number of factors and the effects that such interactions exert on the modalities with which the change manifests and develops, both on the outcomes and on the process itself.

It is worth noting that MRT falls into the domain of Kantian/Hegelian research approaches. On this regard, Laughlin (2007) confronts these approaches with those belonging to Comtean views (usually traceable to the positivistic domain) and the Kantian/Fichteian ones (that instead characterise interpretivist domains). The reason for advocating MRT as a research approach useful to explore changing phenomena is due to its "middle range nature" that allows to overcome the limitations commonly ascribable to the other views (Laughlin, 2007). The rationale for MRT is because of the assumption that there are 'skeletal' generalisations and theories that exist and

once discovered can guide and provide a conceptual language for analysing empirical situations, whilst still recognising the distinctive differences between these empirical situations.

The theory mentioned proposes a rethinking of the concepts of the life-world, steering systems and steering mechanisms used by Habermas, which is based on the assumptions described below (Dunphy and Stace, 1988).

First, it is clarified that the steering media are intended as “societal institutions” and that the systems of actions are considered as “societal organizations” (for example, companies, local authorities, universities). Furthermore, for each societal organization we find a lifeworld of its own, its own sub-systems and its own steering mechanisms, which the authors label as interpretative scheme, sub-systems and archetypes, respectively. Broadbent and Laughlin point out that even at this level it is possible to identify alignment efforts by clarifying that archetypes (such as accounting systems) act in an attempt to balance and make sub-systems and interpretative schemes consistent, to be understood as a set of values, shared meanings and myths. Consequently, the phenomenon of colonization of the vital world theorized at a macro level by Habermas is not limited to the Society widely understood, but can also be found at an organizational level. On this basis, the MRT highlights the importance of understanding the role played by accounting systems, as archetypes able to assimilate influences coming from the external environment, and to transfer them to the interpretative scheme. It should be noted that the response to external pressures can vary depending on the different value systems involved by the organization compared to that of the steering media that activated the aforementioned pressures, and make the organization more likely to resist or accept the new course. Indeed, an essential aspect to consider refers to the balance of the organization, which derives from the coherence between its elements and the external environment (Broadbent and Laughlin, 2005). When this consistency is evident, inertia situations can arise, and these circumstances can only be interrupted by an element of external disturbance. In such conditions it is interesting to understand how societal institutions try to influence societal organizations (companies) by activating forces and mechanisms that undermine the state of inertia, in the awareness of the multiple responses that can derive from them (Mintzberg, 1989; Miller and Friesen, 1982; Laughlin, 1991).

The literature highlights two macro-categories, those of morphostasis (also called first-type change) and of morphogenesis (also called second-type change). In turn, these categories need to be split to fully understand their underlying dynamics.

Morphostasis occurs when the change concerns only the archetypes but

is not able to permeate the culture of the organization, which remains reluctant to the innovations and will lean towards the pre-existing conditions. This can happen with different levels of intensity. Situations of rejection are highlighted, when very limited modifications of the only archetypes are realized, and the latter quickly tend to return to the state of initial inertia. Then, situations of reorientation can appear. This presupposes changes capable of touching upon also the sub-systems, are internalized in the organization because it is not possible to reject them, but do not compromise the interpretative scheme (Broadbent and Laughlin, 2013; Brunson, 2008; Greenwood and Hinings, 1996).

Morphogenesis takes the form of a change that also concerns the interpretative scheme permeating the organization well beyond the superficial and formal levels just discussed above, leading to lasting changes that affect the corporate culture. These processes take the alternative form of a colonization, with characteristics of a coercive nature with a prominent role played by those in power, or as an evolution, which is instead a free and not compulsory change (Dent, 1990; Broadbent, 1992; Zaman Mir and Shiraz Rahaman, 2007; Dunphy and Stace, 1988).

Based on the considerations summarized in relation to the essential aspects of the MRT, it is necessary to clarify how this framework has been employed to conduct the empirical analysis.

For the objectives of the study and in line with the theoretical model, Italian public universities are taken into consideration as societal organizations and the Government as a societal institution. In line with the MRT it was therefore necessary to identify what could be the possible elements capable of disturbing the organizational inertia of the universities, ascribing this role to those regulatory interventions aimed at pursuing a growing corporatization, dedicating greater attention to planning and control systems.

Notably, due to its Kantian/Hegelian originating matrix, MRT fits studies that either rely upon archival sources or interviews (Laughlin, 2007). Thus, this paper relies upon the analysis of IPPs suiting the characteristics of the theory employed. More specifically, we analyse IPPs devoting attention to their articulation and to the type of information divulged, to comprehend if these – understood as archetypes able to assimilate influences from the external environment and to eventually transfer them with varying degrees of pervasiveness to the university's interpretative scheme – can be seen as accounting tools able to convey a first substantial change for the creation and sharing of a control culture, or if on the contrary they are configured as a mere formal fulfilment. The value of such analysis is paramount to start to trace interesting trends in the Italian context, that could also form the basis

for a selection process devoted to pick interesting case studies to analyse through the MRT lens also collecting interviews and any additional document useful.

#### 4. Research design

This paper employs a final sample composed by 66 Italian Public Universities, whose last triennial IPPs (2018-2020) are available on the national Anti-Corruption Authority web-site. Specifically, the website of the National Ministry of Education (MIUR) reports 97 university institutions on the Italian territory, of which 67 state universities. However, the Integrated Performance Plans document was not found for one of them. For this reason, the final sample is made up of 66 state universities (98.5% of all state institutions, as well as 68.04% of all total university institutions).

In order to investigate whether the information contained in the IPPs are really oriented to provide greater accountability and therefore they are not oriented to a mere regulatory compliance, a meaning-oriented content analysis was adopted.

Considering its potential in revealing hidden or unintended meanings and in order to facilitate the interpretation of textual data, the meaning-oriented content analysis is usually applied to archival data (Krippendorff, 2004; Weber 1990; Denscombe, 1998; Smith and Taffler, 2002). Despite its relevance, this method may be criticized for its declared subjectivity, which involves the need to apply some reliability procedures as an essential premise (Linsley and Shirives, 2006). In this regard, the inclusion of certain coding and validation procedures, deemed essential considering the abovementioned qualitative and subjective nature, permits to admit the ontological subjectivity to capture the real meaning and interpretations of the disclosure in the meaning-oriented content analysis approaches (Merkl-Davies *et al.*, 2011; Vourvachis and Woodward, 2015). Therefore, in order to ensure reliability, a coding strategy was preliminarily agreed among researchers. In particular, in accordance with the suggestions of the National Evaluation Agency of the University System, several categories of information were elaborated in order to achieve a coding model to guide researchers in examining the reports. Following these recommendations and in line with Allini *et al.* (2017; 2019), the Plans were analysed by two PhD students under the supervision of a senior researcher who dealt with the data collection jointly to determine whether information on five significant areas (i.e. strategic

planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance) was provided. The comparison between the two PhD students and the senior researcher was very helpful in limiting excessive subjectivity.

For each of these five areas (strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance), 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)<sup>1</sup>. The risk section has been analysed in another way since the National Evaluation Agency of the University System has declined the content differently. In particular, the information relating to functional scope, description of activities, areas involved, probability of verification of the risky event, impact of the risky event, level of risk, priority of intervention and risk mapping has been observed.

*Tab. 1 - Detected items of Disclosure in Integrated Performance Plans*

<i>Integrated Performance Plans sections</i>				
<i>Strategic planning</i>	<i>Organizational performance</i>	<i>Risk analysis</i>	<i>Transparency and Anti-corruption</i>	<i>Individual performance</i>
Strategic goals	Strategic goals	Functional scope	Strategic goals	Strategic goals
Strategic targets	Strategic targets	Description of activities	Strategic targets	Strategic targets
Strategic indicators	Strategic indicators	Areas involved	Strategic indicators	Strategic indicators
Operational goals	Operational goals	Probability	Operational goals	Operational goals
Operational targets	Operational targets	Impact	Operational targets	Operational targets
Operational indicators	Operational indicators	Level of risk	Operational indicators	Operational indicators
Individual involved	Individual involved	Priority of intervention	Individual involved	Individual involved
Information flows	Information flows	Risk mapping	Information flows	Information flows
Timeline	Timeline		Timeline	Timeline
Monitoring activities	Monitoring activities		Monitoring activities	Monitoring activities

<sup>1</sup> The items are provided by the National Anti-corruption Authority (i.e. ANAC).

The researchers verified whether the information had a formal or a substantive significance by assigning a dummy of 0 and 1, respectively, thus achieving a variable score ranging from 0 and 56.

The paper embraces the Day and Woodward's approach (2004) who believe that the symbolic disclosure (the formal one) is essentially recognized when a specific aspect, not limited to the improvement of institutional arrangements, is mentioned in the plan but not supported by reports that permit to understand 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). On the contrary, the disclosure is considered substantive when at least one of the two following parameters is achieved: existence of detailed explanations of the mechanism and/ or strategies driving actions, and presence of clarification in relation to the actions taken. These aspects are considered critical as they lead to a transparent disclosure that allows the reader to totally understand how and why certain dynamics take place within the organization.

Considering a sample of 14 plans randomly extracted and analysed by three independent researchers working on the same document, the consistency of the coding and interpretation of texts was verified. We carried out two different tests in order to measure the robustness of the coding: the Scott II index and the Bhapkar test (Milne and Adler, 1999; Beattie *et al.*, 2004). Relying upon pairwise responses from the researches, we calculated mean values of reliability II Scott of 0.87, with values included in the range from 0.80 to 0.90. Another analysis of the coding coherence, which considered the simultaneous actions of the three researchers, was carried out using Bhapkar's (1966) test. This test checks for marginal homogeneity for all categories concurrently. The statistical outcome was not significant for all the characteristics studied, (considering a threshold of 0.1 for an I-type test error). Given that both tests generated 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.

## 5. Results

### 5.1 Descriptive statistics

Table 2 – Panel A shows minimum and maximum scores, as well as the mean and standard deviation of the information contained in the different

sections building the IPPs: strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance.

We can see that the section related to Organizational performance has reached the higher mean score (0.53), while the Strategic plan section has recorded the lowest mean score (0.26). Overall, the analysis indicates that at least one Italian university has almost reached the maximum score, registering 55, while the minimum is equal to 5. The mean general trend equals to 24.30 indicating that about half of the information analysed is oriented to a substantive disclosure.

The following tables depicts, respectively, the IPPs total average score according to the geographical position (Panel B) and the University dimension (Panel C).

*Tab. 2 - Descriptive statistics – Panel A*

<i>Sections of IPPs</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Strategic planning</i>	0	1	0.26	0.44
<i>Organizational performance</i>	0	1	0.53	0.50
<i>Risk analysis</i>	0	1	0.41	0.49
<i>Transparency and Anti-corruption</i>	0	1	0.47	0.50
<i>Individual performance</i>	0	1	0.47	0.50
<i>Total score</i>	5	55	24.30	12.66

Looking at Table 2, Panel B, we can observe that the Universities in the centre of Italy have the highest medium score (23.75), but also those located in the south have a satisfactory average value (22.50). These values are decidedly in line with the general average of the sample (please see Table 2, Panel A) suggesting that the Universities of central-southern Italy much more impact on the general level of the thoroughness of disclosure.

In order to provide as much information as possible, we have classified the universities of the sample also on the basis of the indications suggested by the Social Investment Studies Centre – CENSIS 2019/2020<sup>2</sup> (Table 2, Panel C). This report classifies public Italian Universities in Mega Universities (more than 40,000 registered students); Big Universities (between 40,000 and 20,000 registered students); Medium Universities (between 20,000 and 10,000 registered students); Small Universities (less than 10,000 registered

<sup>2</sup> This report is available online at [www.censis.it](http://www.censis.it).

students); and Polytechnic<sup>3</sup>.

Table 2, Panel C, shows that the highest average score is recorded by small Universities and Polytechnics, respectively 29.88 and 32.75, positioning itself well above the general average of 24.30. It is evident, therefore, that the latter suffers from a lower thoroughness of disclosure of Universities classified as mega, big and medium. Certainly, the result achieved by the Polytechnics has a greater impact on the total average, but also the effort in terms of transparency and accountability by small Universities is appreciable.

*Tab. 2 - Descriptive statistics – Panel B*

<i>Geographical location</i>	<i>IPPs Total average score</i>			
	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>North</i>	0	52	19.50	13.53
<i>Centre</i>	0	55	23.75	13.94
<i>South</i>	0	55	22.50	13.50

*Tab. 2 - Descriptive statistics – Panel C*

<i>Dimension</i>	<i>IPPs Total average score</i>			
	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Mega</i>	5	37	21.36	13.45
<i>Big</i>	0	40	18.04	13.87
<i>Medium</i>	0	55	19.75	13.55
<i>Small</i>	12	55	29.88	13.49
<i>Polytechnic</i>	13	52	32.75	13.17

To reply to our first research hypothesis (*RQ<sub>1</sub>: Are the different sections of the IPPs related to each other?*), we performed the Chi-square test of independence (tab. 3 – [www.sidrea.it/performance-plans-higher-education](http://www.sidrea.it/performance-plans-higher-education)). The results are statistically significant, suggesting that the IPPs sections are dependent each are, so there is a conceptual association between them.

In particular, the sections related to Organizational performance and Individual performance (398.34), the Strategic planning and the Individual performance (379.65), the Transparency and Anti-corruption and the Individual

<sup>3</sup> In Italy there are four Polytechnic Institutes: Milan, Turin, Venice IUAV and Bari.

performance (377.97) have the strongest association.

As it can be seen, the section on individual performance is the common element among the strongest associations found in the analysis. A plausible explanation for this phenomenon should take into consideration the definition of individual performance promoted by the National Evaluation Agency of the University System.

The individual assessment of personnel takes place based on criteria shared between the parties involved, taking into account the contribution of each item to the organizational performance of the structure to which they belong. The purpose of the individual assessment is to increase the motivation and sense of responsibility of staff members towards the University's mission, highlighting the weaknesses found in the work and possibly proposing the correction of the same through specific training interventions and mutual comparison.

The evaluation of organizational performance consists in the dual meaning of results achieved by the different structures and the organization as a whole, and individual performance (i.e. personnel). In other words, it is necessary to translate the macro objectives identified for the organization into objectives that have a concrete meaning for the organizational units. Organizational performance and individual performance are closely linked in all phases of the performance cycle: only the planned and coordinated action of the individuals allows the achievement of organizational results. Hence, organizational performance includes individual performance (Rousseau, 1990; Hersey *et al.*, 2007; Kim, 2004; Paarlberg and Lavigna, 2010; Ayers, 2015; Landy *et al.*, 2017).

In relation to the association between strategic planning and individual performance, it is clear that the articulation of strategic objectives in operative objectives marks the transition from organizational performance to individual performance and therefore from strategic planning to management and operational planning. Hence, individual performance needs alignment with strategic planning in order to guarantee coherence between strategic and operative perspectives and organizational and individual perspectives (Daley, 2012).

Regarding to the association between Transparency and Anti-corruption and Individual performance, Universities must include in the performance cycle instruments, as objectives and indicators for the prevention of the phenomenon of corruption, the processes and programming activities put in place to implement the anti-corruption plan. In fact, the section on individual performance includes the objectives assigned to the managerial staff and the related indicators also with reference to Transparency and Anti-corruption.

In particular, it includes the objectives assigned to the person responsible for preventing corruption, to top managers based on the activities they carry out, to the referents of the person responsible for corruption if they are identified among staff with managerial qualifications; as well as the objectives, individual and/or group, assigned to the trained personnel working in the sectors exposed to corruption and to the representatives of the person responsible for corruption if they are identified among the non-managerial staff (Shah, 2007; Berggren and Bernshteyn, 2007; Palanski *et al.*, 2011; Roberts, 2018).

Overall, the results reveal interesting considerations that gather around the need of universities, now located in a competitive and dynamic environment, to acquire greater accountability going far beyond the mere efforts of green-washing practices. Hence, adopting the perspective of MRT, the study emphasizes the processes of change in the management control systems of the Italian Universities as a reorientation through boundary management. Indeed, the association found between the different sections of the IPPs highlights the effort to pursue paths of development, growth and consolidation of operational and reporting practices, in a renewed perspective of effectiveness, efficiency and accountability aimed at creating processes of creation of extended and long-term value.

The association found is therefore given by the increasing coordination between the different planning tools that no longer represent the simple check-lists to be validated, but constitute spaces for consultation, negotiation and dialogue in a more robust perspective of accountability.

Now we can positively reply to RQ<sub>1</sub> because a conceptual association between different sections of IPPs exists, so we can argue that a full integration of different areas of performance is reached.

## 5.2 Multivariate analysis

To reply to our second research hypothesis (*RQ<sub>2</sub>: Are the individual sections (i.e. strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance) of the IPPs able to offer a thorough information on Universities' processes?*), we performed the Principal Component Analysis (PCA), a widely recognized data-analysis technique, to reduce the dimensionality of our data set by tracking new factors supposed to capture the main features. For each hypothesis, the first factor analysed is the linear combination of variables used to test the research hypothesis accounting for the highest proportion of their variance, while the second factor analysed is the orthogonal linear combination of the

variables explaining the highest proportion of the remaining variation (Boone *et al.*, 2007). Following the practice originally proposed by Kaiser (1960), we use all principal components whose eigenvalues exceed one.

In table 4, we show the factors determined by PCA, the eigenvectors associated with each variable, and the proportion of variation explained by each factor.

As reported by the table 4 strategic goals, strategic targets and strategic indicators are the most important items in the sections Strategic planning, Organizational performance, Transparency and Anti-corruption, and Individual performance. In other words, the major contribution to the thoroughness of disclosure in the strategic planning and in the Transparency and Anti-corruption sections is given by the first three items shown in table 4 that explain, respectively, the 74.92% and 62.73% of the total variance.

Furthermore, organizational and individual performance detect also the item related to operational goals, showing respectively a “weight” of 69.69% and 71.00% to the thoroughness of disclosure.

Lastly, the functional scope and the description of activities involved are the most important items in the section about risks (68.49% of variance explained).

Hence, it seems that some parts of the different sections analysed offer a thorough information on Universities’ processes than others. Indeed, despite the progress made so far, this result suggests that further and in-depth reflection on the scope of the observed phenomenon is needed, focusing on the consequences connected to conflicts between multiple cultures that look for individual advantages and dominance positions, characterized by ideologies very difficult to break up. This is part of a very heterogeneous cultural context and background conditions that influence and modify the accounting change processes, which should serve the purpose of realignment between the instances of the vital world of social institutions and systems (Habermas, 1987). The MRT adopted in this study highlights that a morphostatic change occurred because a situations of reorientation exist and it is internalized in the organization, but do not compromise the interpretative scheme (Broadbent and Laughlin, 2013; Brunson, 2008; Greenwood and Hinings, 1996).

Hence, responding to our RQ<sub>2</sub>, we can argue that the informational power is mainly enclosed in some items (i.e. strategic goals, strategic targets and strategic indicators) than others that contribute to the greater thoroughness of disclosure.

Tab. 4 - *Principal Component Analysis (PCA)*

	<i>Strategic planning</i>	<i>Organiza- tional performance</i>	<i>Risk analysis</i>	<i>Transpa- rency and Anti- corruption</i>	<i>Individual performance</i>
<i>Strategic goals</i>	6.56	3.70		4.43	4.04
<i>Strategic targets</i>	1.36	2.14		1.79	2.00
<i>Strategic indicators</i>	1.03	1.32		1.30	1.31
<i>Variance explained</i>	74.92%			62.73%	
<i>Operational goals</i>		1.18			1.16
<i>Variance explained</i>		69.69%			71.00%
<i>Functional scope</i>			4.40		
<i>Description of activities</i>			1.07		
<i>Variance explained</i>			68.49%		

*\*we have not reported items with eigenvalues lower than 1*

## 6. Conclusions

Adopting the Broadbent and Laughlin's MRT as a theoretical framework, this paper has analysed whether and how universities rely upon Integrated Performance Plans as tools useful to convey a profound change in their practices, or as a mere exercise of compliance with strict external and financial accountability aims.

In particular, we have formulated two research questions to demonstrate empirically that an association exists between the different elements (integration with the strategic planning, organizational performance, risk analysis, transparency and anti-corruption, and individual performance) that build the Integrated Performance Plans. More precisely, we have adopted Chi-square association index and Principle Component Analysis (PCA) to reply to the aforementioned research questions. Hence, it can be observed that a substantive integration exists between some sections of IPPs, such as Individual performance, Organizational Performance, Strategic planning and Transparency and Anti-Corruption.

Furthermore, this study investigated which items (shown in table 1) of the different IPPs sections contained the major contribution of substantial disclosure, concluding that strategic goals, strategic targets and strategic indicators contribute to the greater thoroughness of disclosure. Hence, although the results show a generally positive level of information, in the preparation of the Plans a prevalent attitude of formal compliance with the law seems to persist. As the meaning-oriented content analysis has shown, in most cases disclosure is used by Italian universities for essentially symbolic purposes. The propensity of universities is to a large extent to undertake choices and behaviours conforming to the normative and regulatory dictates. The IPPs do not seem to fully satisfy those expectations of formalized strategic planning tools, signalling an integrated approach to management, able to reflect the vision of the university, shared at all organizational levels and, even more, by share with stakeholders based on the principles of transparency and accountability.

Overall, according to MRT, the study emphasizes the processes of change in the management control systems of the Italian Universities as a reorientation through boundary management. A morphostatic change that is internalized by the Universities without threatening the vital world, but starting a slow process of the culture of control's growth, with evolutionary perspectives. If on the one hand it is possible to find a fruitful path of systematicity in IPPs, on the others this systematicity is not fully realized because three important critical issues are raised.

First of all, the contribution denotes any areas on which to intervene, which cannot be underestimated and which should be monitored and improved, especially by the control bodies. Secondly, the survey pushes to reflect on the need to foresee targeted interventions by the policy-maker that will help universities in the difficult path aimed at responding to regulatory pressures, which in recent years have progressively increased. This in order to overcome the risk of adopting superficial and sudden practices, incapable of supporting substantive communicative purposes. Lastly, the risk section should not represent an area on its own, but risk identification and monitoring should permeate all other sections of the IPPs. Indeed, from a strategic control point of view, the risk should never be identified as a *silos*, but considered from an integrated and longitudinal management perspective.

In spite of the contributions that the study is likely to offer to academics, practitioners and policymakers, some limitations may well be ascribed to the current research design. For instance, the current analysis still stick on archival documents only, while expanding selected case studies by including interviews with internal and external actors could provide additional food for

thought. Future research in this area should certainly expand these aspects so that more insights into the role played by contextual and cultural features could be added to the comprehension of the disruptive changes affecting universities.

Concluding, this paper offers a twofold contribution, both to theory and practice. It expands the theoretical debate offering newer insights on how IPPs information is disclosed in Italian Universities (see Paolini and Soverchia, 2014; Allini *et al.*, 2019). Furthermore, policy makers should pay effort in designing solutions to ease the substantive operationalization of holistic systems, not fully achieved yet because 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.

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