

# ***Accrual Accounting in the Italian Higher Education System: A Case Study***

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**Abstract:** *In recent years, the Italian Academic sector has been characterized by a phase of strong changes that have had a material impact on how to work with all of the parties involved in the administration and management of universities. In particular, the analysis conducted on the Italian university system has raised many questions, so much so as to generate a series of corrective action merged into a larger project of reforming the University system. It has changed the way of "making university", The need has emerged to review certain aspects of this institution with the objective of improving the product, towards greater competition with foreign interlocutors, much more careful cultural heritage and innovation in the country. In this context, this work represents the main objective analysis of the changes that have affected the Italian university landscape, with special reference to the organizational impact related to the introduction of Accrual Accounting in these Institutions. In order to achieve this goal, we have followed a logical path aimed at highlighting the motivation behind such a move and, at the same time, highlighting the strengths and weaknesses of certain operational issues.*

**Keywords:** *university, planning and control, accrual accounting, accounting accountability and regulation.*

**JEL:** *H52; H75; I2.*

## **Introduction**

The article investigates into the introduction of Accrual Accounting in the Italian University system made by a delegated legislation n. 240/2010.

Starting from a brief review of institutional change in the Italian Higher Education system and the introduction of Accrual Accounting in the public administration, the paper analyzes the main changes and the impact on the University organization.

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In order to understand the impact of this change on the higher education system, empirical research has been used based on a few questions made to the main agent involved in the reform.

The research type approach is deductive-inductive, through the exhibition of a case study research by the University of Cassino and Southern Lazio. This organization decided to improve the new accounting method one year before the deadline of the Italian Minister.

Primary and secondary sources have been used in order to find data. The first sources consist of interviewing the individuals involved directly in the change. The second sources are related to University documents such as government regulations, internal regulations, books, journal articles, news etc.

The article has the following structure. After the introduction, section two illustrates a brief literature review on Accrual Accounting in the public service, in particular the background that led to the change in the government law has been analysed. Section three describes the research method used in the paper. In paragraph four a comparison has been made between the old procedure used in the University of Cassino and Southern Lazio and the new one with particular focus on the changes that have occurred. In section five, after the illustration of a questionnaire used in the analysis, we discuss the results of this research. Finally, before the conclusions, this paper presents a model, based on the case of the University of Cassino and Southern Lazio that will help other Institutions to implement a new accounting procedure and providing them with the necessary tools that will support the change underway.

The Research question addressed in this paper is: How can Italian Universities improve Accrual Accounting? And what are the steps to be followed during implementation?

## **1. Background**

In the last few years the Italian university system has changed its working method. The Humboldtian (Scott, 2006; Olsen, 2007) system of professional dominance has gradually left space for the management education system.

In this process of change, three important periods can be identified. The first one is the period of professional dominance, this is characterized by the important role played by a full professor, with strong freedom in research and teaching (Freidson, 1970). Access to the higher education is limited only to a small privileged group (Polanyi, 1962).

The logic of professional dominance is based on the Humboldtian principles, meaning freedom and full control on the work. Scientific activities are not affected by the stakeholders as a government, private company and other public institutions.

In this perspective, the research and teaching quality is defined exclusively by the Scholar's rules (Brint, 1994).

The Universities are organized around the figure of a full Professor. He represents the heart of the system and the custodian of a specific knowledge in the field of activity.

These Institutions are found by the Government using measures and incentives for public investments. The Academic Association defines teaching standards aimed at transferring general knowledge to the students and regulating the aspects related to the research activity and the diffusion of the results of research.

The next period is from 1967 with the start of a student's revolution and in 1969 with the year of Gentile's Law abrogation that limited access to Higher Education to students with a classical High School diploma.

With an increase in the number of student registrations, an expansion in the number of Universities began, but funds were not enough to satisfy the requests, therefore resulting in a negative impact on quality.

The Humboldtian model based on a student general education is not in line with students needs, They look at the Higher Education degree as a way of increasing their opportunities in the employment market.

In light of what we have illustrated up until now, the Government began a Reform process aimed at regulating the University system through the definition of a course degree, teaching programmes and exams.

The reorganization process creates a strong relationship between the University system and the Government, towards the equal division of financial resources.

At the end of Seventies a large number of registrations, chronic underfunding of the Higher Education system and an unclear management process resulted in the decline of the system.

A process of competition and differentiation between the Academic Institutions began, universities started to compete, with external funds at stake together with the involvement of entrepreneurial activities, the position in the University's rank as a result of their performances and reputation.

In the Nineties the OCSE defined a new role of the University as a promoter of innovation and economic growth. The Universities became entrepreneurial actors in a world where competition is played in terms of innovation.

The change in Academic needs call into question the centralized model used up until then. To achieve the results a much more flexible and autonomous direction is required in the management process.

The new role defined by the OCSE and the targets of a European Agenda of 2000, become the most competitive and dynamic knowledge-based economy, asking the Italian Higher Education system for a strong policy in the production of knowledge and human capital that support the innovation at all level.

Additionally it is important to operate on the costs with a much more efficient and effective allocation of resources, in order to play a role in the educational market.

The new institutional logic of a Italian Higher Education system is based on three pillars.

1. market logic;
2. audit and evaluation;
3. managerialist ideology.

The centralized approach used by the Government changed gradually in the way of a market logic, a new regulation with more autonomy in the Universities management is important.

The student's role has changed from socialized and cultivated of knowledge to consumer looking for better investment in knowledge.

The application of market logic is facilitated by the emergence of metrics based on the results of research and by the university's ranking reputation.

Moreover, an evaluation of the single and the system increases internal and external trust, in this way everyone can express their personal opinion on the universities and make their relative choices.

In this regard it is necessary for Universities to design a system of internal control and evaluation that may provide a feedback on management and if it is necessary to regulate the system towards the objectives.

As Power states, (Power 1997) with the audit society, the Auditing activity in the University becomes obligatory to verify the level of efficiency of a management choice.

In the 80's the idea that the combination of market model and the managerial ideology can best be managed by a New Public Management (Hood 1991; Kettle 1997, Sharma 2012), highlights the idea in which the public sector must be managed following the logic of a private sector (Hopwod 1984, Miller 1994).

For these reasons in the last years many countries began a reform process towards greater allocation of resources through the adoption of a system performance control (Hood 1995, Groot, Budding 2008).

Some scholars say that the adoption of accrual accounting in the public sector is a natural step (Lapsley et al 2009, Christensen 2002) and it is mandatory if the goal is represented by the organizational efficiency (Guthrie 1998). From this perspective, in Romania, the living standard is influenced by the urban development (Androniceanu, 2011).

In Italy the introduction of Accrual Accounting became mandatory with the Law 12.30.2010 number 240, that represent the last change occurred in the Italian University Reform Process started in the year 1989 with the Law 05.09 number 168.

In particular implementation of the Law 240, known also as Gelmini's Law, carrying the name of the Minister that made it, are based on three pillars:

1. system recruitment;

2. accrual accounting;
3. internal organization.

The new recruitment systems define a national qualification for each scientific sector, a new accounting model based on accrual accounting and the Administrative reorganization, necessary for the application of accrual accounting logic.

Following the Gelmini's Law, in the next paragraph we will examine their impact on a University system, studying in particular its impact on the University of Cassino and Southern Lazio.

## **2. The Research Methodology**

The research methodology used is based on the analysis of a single case study for a change in the accounting model of Italian Universities.

Through a deductive-inductive approach, the case study of the University of Cassino and Southern Lazio is introduced, the same university that took part in the initiative of incentives by the government, including the introduction by 2013 of the sole Balance Sheet of the University in accordance with the principles and criteria of economic-financial accounting.

Analysis of the case contributes towards enhancing existing literature, with a view to a punctual definition of the main difficulties characterizing the passage from financial accounting to accruals accounting within these institutions.

The study refers specifically to the following aspects:

- re-organization of the University in accordance with the indications provided in the Gelmini's Law;
- comparison of the training process of the Sole Balance Sheet of the University, before and after the reform;
- the main problems found by operators involved in the implementation of the new accounting model.

The acquisition of data has been carried out through a *multi-method approach* that has allowed for sourcing of information through the following sources:

- ✓ in the databases of the University, the documents and implementation lines of the Italian Government have been sourced;
- ✓ in the administrative offices of the University, regulations related to the implementation of the new accounting model have been collected;
- ✓ in the various offices of the University, interviews have been carried out on the individuals involved in the change process;
- ✓ furthermore *public sources* have been used to interpret the reasons for this change in the university system ;

The validity of the results illustrated is based on a comparison between the different types of information collected.

### **3. The case study**

The use of accrual accounting has been available since the University autonomy of 1989 but this has never been considered as an opportunity for the Academics (Coran, Sostero 2007), and only some Universities decided to adopt this accounting logic.

The reason for this negative response from the Italian University system can be found in the idea that the accounting method is an instrument that characterizes the life of the organisation. For this reason a change in accounting logic is a change that requires the complete involvement of the organization.

The organization has to understand that the change is the only way for expense monitoring and system efficiency (Catalano, Tomasi 2010).

The case study analyses the aspects related to the introduction of accrual accounting in the University of Cassino and Southern Lazio. To achieve the direction of Gelmini's Law the University has appointed a special commission that defines the guidelines to carry out the Reform act.

The University of Cassino and Southern Lazio used a gradual approach for these changes, first of all the modification of the University organization structure.

This approach is based on two steps:

- the elaboration of three guidelines that disciplines the aspects of planning, recognition and control of each operation;
- the elaboration of a final document that define the University Accounting rules.

Until now, the University elaborated two documents, the first one is the "Introduction to the Accrual Accounting", the second one is the "Entry Recognition".

The innovations introduced by the first guidelines are centred on the following aspects:

1. external reporting;
2. Academic organization;
3. University balance sheet process.

The aim of the first aspect is connected to the disclosure's preparation and performance's communication to the Ministry of Education, University and Research and other stakeholders.

The disclosure will be represented by the following documents:

- balance sheet – with authorization right;
- budget of the last 3 years;
- annual report based on accrual accounting logic;
- annual report based on financial logic;
- consolidated Balance sheet.

It is important to clarify that the authorization right is most important for the balance sheet validation because this right is connected to the expense authorization and it is limited to the documents based on accrual accounting logic.

Moreover, the annual report based on accrual accounting must be in line with the 3 years Budget, this planning activity will support the organization in the future decisions.

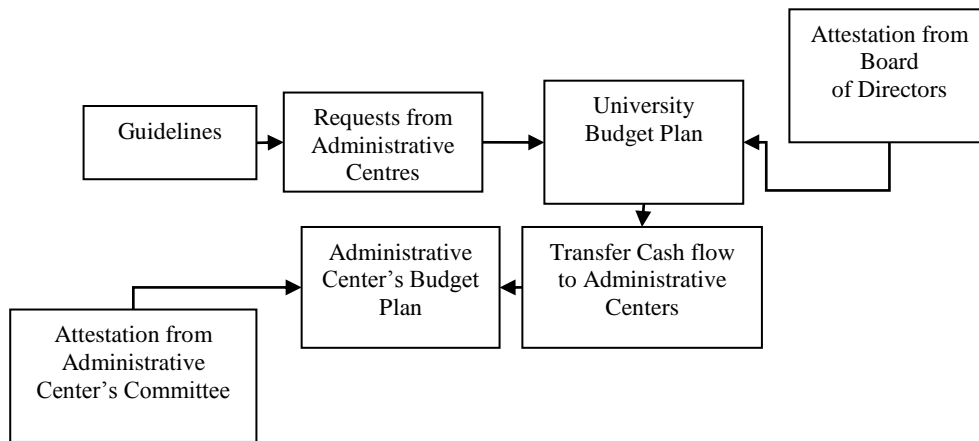
In the introduction stage, the Ministry offered the possibility to produce two Annual Reports, one in respect of financial accounting logic, only as an informative role, and the other based on accrual accounting logic, furthermore, if the University has a share in a company also a consolidated balance sheet.

The second point is connected to the internal organization. For this reason, the University was organized in Management centres, in other words business units in line with the central unit.

In this way it is necessary to analyse these units under two aspects:

1. the procedure for a Balance sheet with authorization right;
2. the steps necessary for the implementation of accrual accounting.

These two steps will have a different impact on each organization structure. The following figure will show the old procedure for a Management Center's balance sheet (Figure 1).



**Figure 1. Administrative Center's Balance Sheet procedure pre-reform**

*Source: our elaboration*

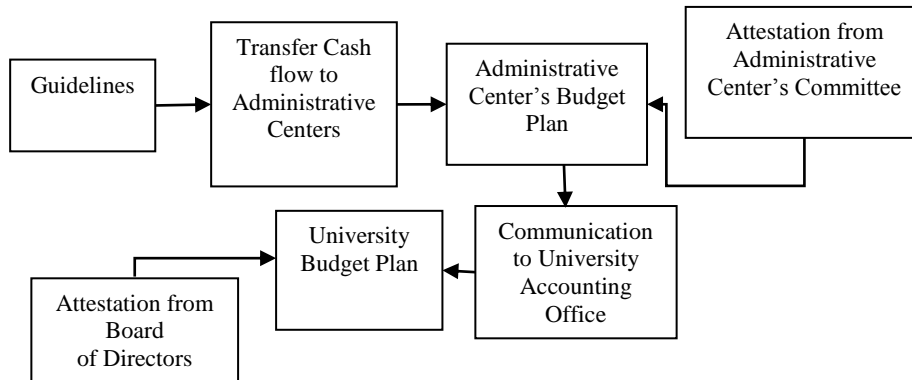
With the old procedure the Rector defines the guidelines, later there was a negotiation period with the Management centres that finished with the annual budget subject to the validation of a Director's board.

The University annual budget represented the first step for the annual budget of each Administrative Centre. Also the budgets of each Management centre was subject to validation but in this case from a single centre board.

The figure 2 show the new procedure used for the University balance sheet.

The Rector delineates the guidelines after this step there is a negotiation phase between the periphery units (Administrative Centre) and the Central unit, this stage is important for the definition of a single periphery unit budget.

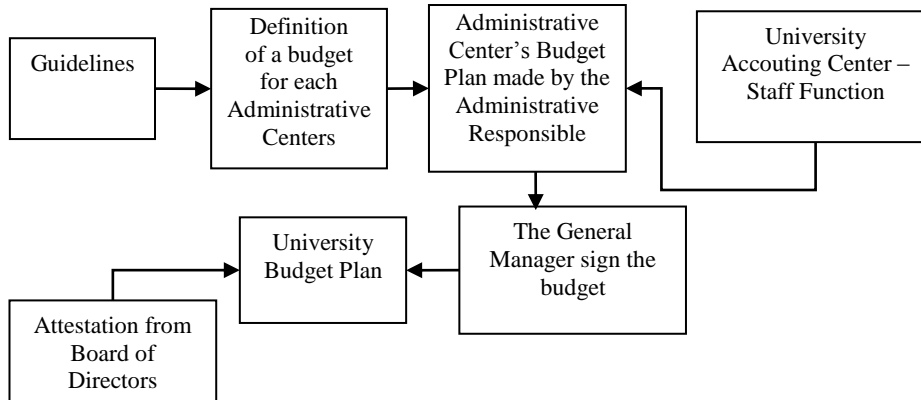
After the preparation and validation of a single centre budget, there is the preparation of a University system budget based on the results of a single centre budget.



**Figure 2. Administrative Center's Balance Sheet procedure post-reform**

Source: our elaboration

With this approach the stakeholders will have one single piece of information on University's performances and not a single report for each University unit. This approach will focus on greater efficiency request to these organizations.



**Figure 3. Administrative Center's Balance Sheet procedure post-reform**

Source: our elaboration



The figure above show what happens for these units (Figure 3).

Other aspect defined in the document prepared for the introduction of accrual accounting in the University of Cassino and Southern Lazio is the preparation of a Balance sheet for different University units:

- Centralized Management Centers;
- Centralized Management Services.

The first document is always the Rector's guidelines, after these there is the preparation of a single Unit's Budget in this stage the University Accounting centre is in staff with a single University's Administrative Unit and play a linking role between University periphery and centre.

The Unit's Budget will be transferred to the University Administrative Director for the validation.

Only with the adoption of this approach will be achieve the goal of a more efficiency through the University's units monitoring and valuation in relation to the resources used.

The second document is connected to the aspects of a "Entry and Recognition" using the accrual accounting. This document is important for the regulation of a recognition's aspects.

After the definition of a recognition's goals, it analyses some critical aspects like:

1. Financial management;
2. Responsibility on the financial management;
3. Cash flow management;
4. Management analysis;
5. Audit aspects;
6. Procedure for a budget's changes;
7. Asset's management.

As we have just seen the document analyses more aspects of a entry and recognition, but one is more important than the other, this is the cash flow management (article 7), the expectation of a management analysis (article 9) and at the procedure for a budget's changes (articles 10, 11, 12 and 13).

The main aspect and at the same time the major problem is the central control of financial resources, maybe this aspect will generate some problem between different units interests, especially if the resources will not cover the needs.

Others problems will be linked to the control process and to the central Accounting office that have to verify, eventually, the changed occurs between goals and results.

Finally, it was governed by the audit, review and amendment of the budget, activities designed to lead to different responsibilities for the parties involved in the same. In fact, the Regulation provides for two different procedures depending on whether it is:

1. Increases or decreases in the allocation of resources tied and destination;

2. Disequilibrium situations which require adjustment of the budget in relation to certain events not foreseeable;
3. Re-modulation costs within the budget allocated to management centres.

In the first two cases, the task of approving the changes under the responsibility of the Board of Directors and, in urgent cases, to the Chancellor. In the third case, the authority responsible for authorizing changes is the Managing Director on a proposal from the governing bodies of the Centre of Administrative Responsibility.

Finally, the control, review and modification of the budget has been regulated, all activities destined to create different forms of responsibilities to the individuals involved.

In fact, the regulation provides for two different procedures, according to the following:

1. Variations in terms of an increase or decrease in the allocation of resources with the limit of destination;
2. Situations of unbalance that require intervention related to the adaptation of the budget with regards to some unpredictable events;
3. Re-modulation of costs within the *budget* allocated to management centres.

In the first two cases, the role of approving modifications is down to the Board of Directors and, in urgent cases, to the Rector.

In the third case, the individual nominated to authorise variations is the General Manager, following a proposal made by the Board Centres of Administrative Responsibility.

#### **4. Case study results and discussion**

##### ***4.1 The questionnaire***

In order to identify the main critical points found by the institution in the analysis and personnel directly involved in the change, some University employees have been interviewed.

In particular, a questionnaire has been specifically created with five open questions, so as to allow for the emergence of the main perplexities related to change, warmly welcoming suggestions that people may offer to give.

The individuals involved in change interviewed, are the following:

- Rector;
- General Manager;
- Balance Sheet Service Manager;
- Secretaries of University Departments.

Despite the fact that the sample is relatively small, it is important to point out that the individuals indicated above have been selected as they are actively involved in the accounting model change.

The questionnaire has been created by including the following questions:

1. What is your opinion on the choice of change of the accounting model in Italian Universities?
2. What do you think of the relationship between the sole Balance Sheet of the University and the control of each Administrative Centre, with a view to favouring programming activities of the Universities?
3. Do you share the choice made by the University of organising the Balance Sheet of the University one year in advance?
4. What do you think of the change in the accounting model, with reference to the organisational effects?
5. What, in your opinion, are the main problems found in implementation of economic accounting following approval of the regulations described?

#### ***4.2 The data results and discussion***

By analysing the results that have emerged from the case of the University of Cassino and Southern Lazio, including the interpretation of the questionnaire results, it is possible to focus attention on the implications of the passage from financial accounting to accrual accounting of university public administrations.

The main thoughts fall on reorganisation of the University according to the reform law of Italian Universities, a comparison between the training process between the sole Balance Sheet of the University before and after the reform, the problems found by operators in implementing the new accounting model.

With reference to the first aspect, the Rector considers that the reform law *«is very clear in lining up the accounting problem with the problems connected with the organisational structure»*. At the same time, the department secretaries complain of a poor level of the University with regards to the duties assigned to the new roles born after the reorganization of the Departments. In particular, they refer to the connecting figures between central administration and peripheral organizations which, as stated by the General Manager, *«should guarantee greater dialogue between the periphery and the centre and therefore greater involvement by the Departments in University problems»*.

Many people agree on stating that re-organisation of the University may favour greater allocation of resources, an assessment of the result, re-allocation of the resources according to the results achieved, with a view to their rationalization.

On this point, the General Manager pointed out that creation of the sole cash-register of the University has allowed to overcome some consolidated procedures whose effect can be found at the end of the year with an increase in costs by Departments in order to avoid the residues from returning to the cash-registers of the University.

We are now taking part in an opposite kind of behaviour by the Administrative Responsibility Centres, who tend to spend less compared with the budget granted to them.

The training process of the sole Balance sheet however favours the identification of cost centres with effects on the efficiency and effectiveness of the Administrative Responsibility Centres.

With regards to the technical difficulties found by the operators, it is important to highlight the words expressed by the Balance Sheet Service Manager: [...] *the old programme was not a real accounting programme despite the fact that it allowed for registration of management in financial accounting, [...] the problem emerged at a later stage as it did not allow for elaboration of the Balance Sheet and Profit and Loss Account.*

Another problem found by the General Manager and by the Department Secretary of Engineering is the cultural barrier that implementation of the new accounting model needs to overcome. According to these individuals, it is not easy to change the culture of employees according to an economic-financial perspective, despite the financial one.

### 5. A model for the introduction of accrual accounting in higher education institutions

Following the analysis of the case study, the aim of the research has been the definition of a framework adoptable by different universities for the transition to the model of accrual and analytical accounting logics.

This framework consists of five areas of interest (Figure 4), in order to understand and to address the major issues and, in particular, to ensure transparency and homogeneity of systems and accounting procedures at national level.

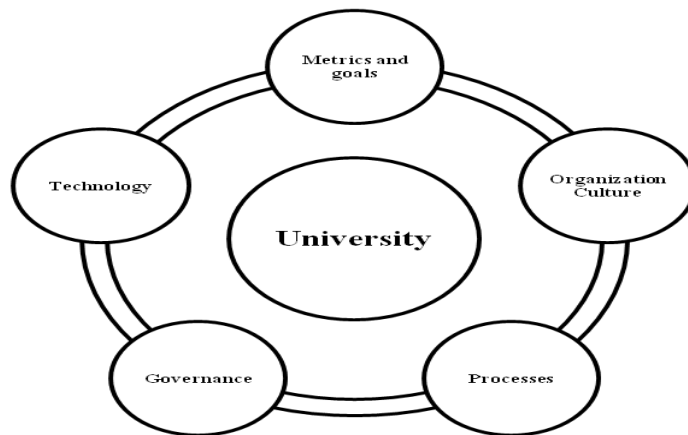


Figure 4. Adoptive accrual accounting framework

Source: our elaboration

The first area of action is represented by the identification of indicators useful to the evaluation of the university performance related to the objectives of strategic and tactic order individuated every time by the Rector and by single Administrative Centres.

For this purpose, it is considered correct to divide the system in two levels, University and Administrative Centres, and, for each of them, it has been identified techniques of analysis of the results.

At a University level, the instrument individualized is represented by methodologies of financial statements analysis, integrated with indicators based on extra-accounting information, such as the standard costs given by the Minister of Education, of University and Research.

At a sub-system level we chose the mean of analysis of costs, direct costing and variable costing, because it is known that these instruments, exploiting the potentiality offered by the analytical accounting, are appropriate for the evaluation of the performance of the Centers cost and profit identified after the reorganization of the University system.

Beside this, the prevision of indicators of performance should allow monitoring management activity to several levels and fast action of responsible people.

It is necessary to note that the monitoring phase will represent both an instrument of control of the results, and a method to provide value to the activity of an individual employee and of the structure through the prevision of prizes related to the acquired results and to the resources in use.

Controls will be carried out in two phases: the first one coinciding with the phase of allocation of the resources in relation to the objectives prefixed and the second one related to the phase of control of the results at final balance.

In conclusion, being the activity of control understood with suspicion in public organizations, it is necessary forecast a phase of sharing the objectives and the means of monitoring, looking for a better exploitation of the same to a central and peripheral level.

A second area of action concerns the development of the organization culture that represents an important point to make the passage from the system of financial accounting to the system of accrual accounting. It can be divided in two phases:

- The top-down phase is characterized by the commitment of the Rector, who must let the people understand the importance and the necessity of a system of programming and control, through a comparison with executive officers at university level and at the level of the single Administrative Centres;
- The bottom-up phase is necessary to establish a cultural process from the bottom and it is composed both in education courses aimed for executive officers, for the employees of the Accounting Center, for the

executives of the Administrative Centres, and also for the employees non-directly involved in programming processes.

In this way, it is necessary to have a leadership that can guide from the head the culture change of the whole organization and that can let people understand the opportunities linked to the programming and control of the expenses.

At the same time, the training of human capital of the University becomes essential and can be stimulated through education courses about a new way of thinking of the measurement of administrative operations.

For this purpose, the University can introduce people that simplify the formation of the organization culture.

At Central level, it is necessary the constitution of a Technical Board whose duty is to elaborate the policy of the new accounting model.

Furthermore, in order to link the centre and the periphery, it is suitable to integrate a subject of high professional skills that has a role of guide and support for the Administrative Centres that is the evangelist. This last one may be identified in professional figures who, appropriately formed about the new University information system, supports the administrative office and reports to the management team about any problems faced by the departments applying the new accounting tools.

The third area of the model concerns the working processes to carry out this transition.

Such processes are referred to all actions aimed to modify the internal organization procedures and the structure of the University.

According to this, the whole organization must proceed with following a modular approach, understanding and creating some useful trial for a correct and gradual change.

First, the support activity made by the Technical Board instituted is essential to define the procedures of prevision, of management and of surveying of administrative activities respecting the accounting principles concerning the preparing the University balance sheet.

With reference to the organization aspect, the University shall be divided into Administrative Centres, peripheral organization units that work exploiting the resources made available from the centre and answer to this last one about the reaching of the programmed objectives.

This division is relevant both for preparing the University balance sheet with authorization right and for implementing analytical accounting.

Regarding the internal procedures, the ways of allowance of the budgets of the Administrative Centres are very important.

Specifically, the Rector makes the guidelines, to which a “interaction” phase follows between the Accounting Centre and the Administrative Centres of management individuated; to the end of this procedure, the Accounting Centre allocates the budget to be exploited for the Administrative Centres operation.

Therefore, it is important to define some operating processes able to support the employees who will make the balance sheet, because the programming aim of this tool represents one of the most important criticism discovered during the transition from the financial accounting logic to the accrual and analytical accounting logics.

At the end, with reference to the University, we consider a gradual process to limit the impact of the change of the statement of accounts both for who makes the accounting documents and for the stakeholders interested to verify the trend of the organization.

In fact, during the transition phase it can be possible to keep both the financial accounting and the accrual accounting in a parallel manner, even if the authorization right will be exclusively connected to this last method.

The objective is to avoid revolutionizing the procedures, but adapt them gradually according to the necessities of the single organizations.

The procedures concerning adoption of the budgets, preparation of the University documents, and the accounting procedures of the administrative activities must be made with the arrangement of a series of internal policies that, at last, will flow into the Administration, Finance and Accounting Regulation.

This last one, and also the guidelines made by the central administration only represent some instruments of the governance, making part of the forth area of the model under analysis.

The subjects of the governance forecast to the sub-section number 1 of the law No. 240 of 2010 are: the Rector; the Board of Directors; the Academic Senate; the Audit Committee; the Evaluation Unit; General Manager. The Technical Board, if nominated on a permanent basis, can be added to the latter.

With reference to these subjects, due to the passage to the new accounting model, the role of the Rector with the attribution *ex lege* of tasks of working and managing aspect becomes even more important. All of this is explained in a re-definition of the assigned tasks given to the collegial boards, with a clear transfer of the decisional power towards the Board of Directors and the reduction of the role of the representation board of the scientific areas (AS).

Finally, the last aspect that the high education institutions must examine is concerning the necessary tools to make the transition to the accrual accounting logic.

The area of technology refers to the need on the side of the central administration to invest in structural capital, represented above all by new accounting software.

The choice of the instrument to use must be accurate because a large part of a positive result of the transition it will be linked to the adoption of a software that can be functional to the aims and that permits in a thoughtful way its exploitation by the employees.

In conclusion, the passage to the model of accrual accounting logic surely has some effects on the organization inside the university institutions.

The framework identified should give some guidelines to the different institutions for implementing a homogeneous, well-organized model and, at the same time, to consent to adapt the transformation to the particular exigencies of every University, in order to guarantee the transparency and the comparability of the systems and of the accounting procedures.

## **6. Conclusions**

The main objective of this present research is to examine how the Italian University Institutions have received favourably the law obligation of the passage from a financial accounting to accrual and analytical accounting, in particular analysing the case of the University of Cassino and of Southern Lazio. Beside, in the perspective of the activity of programming and control of the management, the study has put in evidence the existence of economic opportunities related to an internal reorganization due to the transition to the new accounting model.

In the present economic scenario, characterized by lack of State financing, by an opening towards private funds and by the demand for a growing internationalization, an European process has been activated (declaration of Bologna, 1999; declaration of Lisbon, 2000) that has the aim to allow the university institutions to formulate some management strategies that satisfy missions relating both to didactics and research and the conversion of knowledge produced in economic and social benefits (Etzkowitz, 2003).

The entrepreneurial universities are characterized by three aspects: the entities must produce knowledge to incorporate in intellectual property rights that supply profit with their exploitation; the laboratories of the firms must be open to the collaborations with the firms, in order to have a larger representativeness on the territory; to offer university courses useful to the education of the new entrepreneurial class that can compete with a global level.

Because of this perspective, the Italian government has started some law modifications.

The main changes are connected to the organization of the universities, to the procedures of hiring employees and to the improvement of the quality and efficiency of the whole system.

In fact the analysis made about the case study has highlighted three areas of intervention:

1. University regulations;
2. Organization of the administrative centres;
3. Education of employees.

With reference to the first aspect, the actions made by the University are connected both to the part controlled by regulation, in which some internal procedures aiming to make a University balance sheet are made, and to the constitution of a Technical Board, whose objective is to guide the activity of the internal reform of the University system.



In parallel to the making of the internal policies, the organization is submitted to further changes that interest the Administrative Centres, which are reorganized in consideration of different necessities and in relation to what it is required from the activity of programming and control that the administration intends to activate.

At last, the aspect that requires a remarkable work concerning the organization of the universities is represented by the education of employees. This aspect represents the cardinal point of the efficiency of the new system of accrual accounting.

Considering all of the interviews carried out, the execution of this transaction has required a sharing of the objectives and especially their acceptance by all of the individuals involved in these changes. A dual information activity was therefore necessary because, as shown during research carried out, a remarkable change needs a sharing of the objectives of the university by all subjects that work inside it.

At the end of the analysis, we have identified a model that the Italian universities can adopt to guarantee the transparency and the homogeneity of the systems and of the accounting procedures.

This framework summarizes in a complete way the areas of intervention in which the principal issues are discovered (metrics and goals; organization of culture; processes, governance, technology) and gives a working referring scheme.

In the strategic and management perspective, the future researches will be orientated to make an analysis that can overpass the national limit, in order to supply to every complex organization a framework for a correct and efficient implementation of the passage to a model of accounting that implies remarkable changes in the organization settlement.

Considering all the things discussed, it is possible to say that in order for universities to appear as entrepreneurial they must consider a fourth aspect besides the other three already discussed. They must adopt a model of management of entrepreneurial type and, then, a model of programming and control. In this sense, the accrual accounting logic represents one of the most important points that allow the transformation of the universities in entrepreneurial entities.

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