

“The introduction of job evaluation system in an Italian university. The case of A.Avogadro University”

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Economia Aziendale Online

©2003

International Business Review

Editor in Chief: Piero Mella

ISSN 1826-4719

Reg. Trib. Pavia - n. 685/2007 R.S.P.

Pavia , July, 2009

No. 3/2009

The introduction of job evaluation system in an Italian university.

The case of A.Avogadro University¹

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Abstract

This paper deals with the implementation of a job evaluation system in a University in the North of Italy (A. Avogadro University).

Job evaluation in public organizations is characterized by specific issues (high bureaucracy, high organizational complexity, high influence by trade unions, etc...), in particular in those supplied services in which human resources role is of outstanding importance.

¹ We are grateful to Prof. Paolo Garbarino, A. Avogadro University Rector, Dr. Pasquale Mastrodomenico, A. Avogadro University Administrative Director, Dr. Vilma Garino, University of Turin, for their helpful information and comments.

We also want to thank Mrs Anna Montersino for her helpful collaboration.

Sometimes, the high organizational complexity (in terms of dimension, number of levels, aggregations stages, coordination instruments, etc...) depends on the complexity of university management.

The project goals are the following:

- to adopt the guidelines of National Labour Contract (CCNL) and local updating;
- to provide university central administration with a managerial tool to manage human resources;
- to form the basis for the development of a management by objectives (MBO) system;
- to give to central administration some concepts about the process reengineering of university organizational lay-out.

This job evaluation system is based on a series of “common principles” agreed by both university top management and labour associations. These agreed principles are coherent with the up-above mentioned goals.

The point-factor rating method was applied. The factors selected by the university central administration and the trade unions in accordance with the National Labour Contract were the following:

- degree of responsibility
- complexity of job
- size of the structure
- specialization
- innovation

On the basis of the points obtained through the application of this method four ranks of responsibility and payment were established.

Keywords: job evaluation, public organizations, Italian state universities

1 - Introduction²

Public organizations are characterized by specific issues (high bureaucracy, high organisational complexity, high labour unions influence) than private firms. Sometimes the high organizational complexity (in terms of dimension, number of levels, aggregations stages, coordination instruments) depends on the complexity of the organization itself and on organizational structure.

In addition, the role of human resources becomes a fundamental element in specific organisations, such as public ones, whose outputs are represented by services. The very same characteristics of service – intangibility, heterogeneity, concomitancy, perishability (Fitzgerald, Johnston, Brignall, Silvestro, Voss, 1991) – show that its value depends mainly on the subjective skills of service providers. Universities, and the services they provide, stand as a perfect example of this.

Furthermore, Italian public Universities, and public administration at large, drastically changed tack in the 90s: from a formalism-based system to a system based on management by objectives and performance measurement. Therefore, the role of human resources was reassessed and emphasized. “Job evaluation” and “Management by Objectives”, in particular, become fundamental elements in human resources management and planning.

The new Italian National Collective Labour Agreement rules that every state university must adopt an evaluation system in order to define and measure the role, the per-

² This paper is the result of the joint work of the authors. However, paragraphs 1, 4.2 and 6 can be ascribed to Andrea Turolla, paragraphs 2, 2.1, 5.1 and 5.2 can be ascribed to Paolo Careno, paragraphs 3 and 4.1 can be ascribed to Jose Franchino and paragraph 5.3 can be ascribed to Pierantonio Bertero.

performances and the potential of each technical and administrative employee (Migliozzi, 2000). However, the high autonomy level allowed to state universities affects the implementation of the up-above system. In fact, National Collective Labour Agreement defines only the general rules, whereas, each state university defines and negotiates its own human evaluation tools with local labour unions.

In addition, the extreme gap between private and public organizations – for instance as regards purposes, organizational structures and rules, human resources management laws and rules – is an obstacle for job evaluation adoption (Borgonovi, 2004). In fact, it is impossible to apply a private company's job evaluation method in a public organization without major adjustments.

Therefore, in this context the job evaluation model creation and the definition of job evaluation model features become strategic steps for the public organization.

This paper analyses, through a single case study, the implementation of job evaluation system in the A. Avogadro University of Eastern Piedmont (North of Italy).

Specifically, the paper will focus on:

- the aims and scopes of job evaluation system implementation;
- how the model was realised;
- the model features;
- the role of employees in the first job analysis;
- the main outputs before and after the job evaluation system introduction in A. Avogadro University.

2 - Job evaluation

Job evaluation may be defined as a systematic process for defining the relative value or worth of jobs or roles within an organisation (Wether, Davis, 1993; Armstrong, Baron, 1995). Those relative values, then translated by the organisation's pay structure, determine the salary paid for performing the job (Kahya, 2006). In other words, job evaluation is essentially a system that formally compares the characteristics of dissimilar jobs and links these to pay (McNabb, Whitfield, 2001). It helps in developing and maintaining a pay structure by comparing the relative similarities and differences in the content and the value of jobs (Kahya, 2006). In fact, the main assumption of job evaluation is: the more complex a job is, the greater the value or the worth of job (Treiman, 1979) and, therefore, the higher the wage (Figart, 2000).

Normally job evaluation is not the sole basis for setting wages. Nevertheless, the role of job evaluation in salary administration has grown in importance as more organisations have attempted to implement comparable worth policies (Das, Garcia-Diaz, 2001; Kahya, 2006).

First job evaluation analysis were realised in United States during the 1910s (see Oliviero, 1998; Figart, 2000), although modern job evaluation developed in the United

States during the 1920s and 1930s. In fact, in 1925 Merrill Lott introduced the concept of “point factor” and in 1926 he refined his reasoning. In the same year Eugene Bengue (Benge, Burk, Hay, 1941) modified Lott scheme, originating the factor comparison method (Figart, 2000).

Four major job evaluation methods were in existence by the end of 1926: ranking, grade description, factor comparison and point factor. During the 1940s, the *a priori* point factor method became the most common method of job evaluation. Edward N. Hay (Hay, 1940) developed the most widely used ‘canned’ *a priori* system, the Hay Guide Chart-Profile Method (Figart, 2001).

Despite differences in detail and methods, various job evaluation procedures involve some common steps. First, job descriptions are written for the jobs in question. Then a set of relevant job characteristics, called compensable factors, is identified and a weight is assigned to each factor (Arnault, Gordon, Joines, Phillips, 2001). The most common categories of compensable factors are skill, effort, responsibility and working conditions. Depending on the type of sector, these factors do not have equal weights in evaluating the jobs.

In Hay method, the weight of each compensable factor is determined in advance (or *a priori*) by determining a range of points that can be accumulated for each. The next step is to rate jobs (or job classes). Job descriptions, detailed questionnaires and interviews with employees or with their supervisors are used to rate jobs on each compensable factor. Total point scores are tallied for each job or job class. In the last step a wage rate was assigned. In fact, a salary scale is used to relate a specified point score (or range of points) to a specific wage level. The greater the points, the higher the wage (Figart, 2001).

Even if job evaluation is one of the most adopted personnel managerial method, many scholars criticised it, because they think job evaluation system is not flexible in reacting to business and work changes (Lawler, 1986; Grayson, 1987; Emerson, 1991) and it is not efficient in terms of cost and time (see Towers Perrin criticism in Armstrong, Baron, 1995).

Other scholars (Lawler, 1990; Rubery, 1995) affirm that job evaluation typically introduces a greater degree of rigidity and top-down orientation to the pay and job structure, potentially yielding a conflict within the organisation (McNabb, Whitfield, 2001).

McBeath and Rand (1964) and Schwab (1980) identify several problems with the idealised view that job evaluation measures the value of all jobs in an organisation. In particular Schwab argues that there is no evidence of the construct validity of job evaluation, that is, no evidence that the resulting job scores are related to the construct they are supposed to measure. Therefore, the idealised view does not correspond to job evaluation in practice (Arnault et al., 2001).

Aaron and Lougy (1986) state that job evaluation has often used not to substantially change the wage structure, but only to remove anomalies from wage structures.

Nevertheless, job evaluation is today still applied in several organisations, both in small and large companies, in private and in public sector. In fact, job evaluation should be regarded as an internal process (Pritchard, Murlis, 1992) that let the management to adopt a formal, logic, rational and transparent instrument in order to value the jobs within the organisation (Armstrong, Baron, 1995).

As many scholars pointed out, this notion of worth is an internal one. The value of a job can be determined only within the context of a particular organisation, and a given job can presumably have different values to different organisations (Arnault et al., 2001).

Moreover job evaluation system let an organisation only to measure the difference between jobs; it does not of itself determine the “right” pay-level for every job or for any job class (Fowler, 1992).

Lastly, we want to stress that job worth depends on the characteristics of the job, not those of the workers who hold the job (Dunn, Rachel, 1971; Bellak, 1984). In other words, job evaluation measures the value of jobs, not people (Armstrong, Baron, 1995).

2.1 – Job evaluation in public organizations

As described in the previous paragraph, job evaluation system lets the organizations to clarify their organizational structure and their internal processes (Rebora, 2009). Therefore, it becomes a strategic element in structures characterized by high levels of complexity and formalization, such as public organizations. In fact, in these contexts job evaluation is usually implemented to define and justify hierarchies, roles, scopes and salary premiums (Giovannetti, 2008).

Specifically, job evaluation became compulsory in most of Italian public organizations in the second half of 90s; nowadays it is applied especially for managers and officials’ evaluations.

In fact, these subjects usually receive a specific allowance directly linked to the specific role.

However, public organizations’ features (complex organizational structures and high formalization) are also seen as limits for the implementation of job evaluation tools. In fact, no private company-applied model could be used in public structures without specific adjustments.

Therefore, the implementation of job evaluation systems needs a preliminary step concerning the creation of a special model suitable for public organizations’ aims (for instance, see Bologna University case (Depolo, Menna, Pizzo, 2004) and “Agenzia del Territorio” case (Imbucci, Lazzara, Fragiacomò, 2005)).

Lastly, a typical issue concerning job analysis in Italian public structures needs to be pinpointed.

Even if job evaluation ground rule is the assessment of “empty desk”, with no correlation with the current employee, sometimes the opposite tendency happens. In other words, that role becomes connected with a specific employee, independently of the current organizational position. This choice can increase the internal unrest and the internal opposition to job evaluation system: in fact, these evaluations are seen as partial and influenced by organizational nepotism logics (Giangreco, 2005).

3 - The Italian University System

The Italian University System consists of:

- 66 state Universities;
- 17 private Universities;
- 11 telematic Universities.

It can therefore be inferred that the Italian University system mainly consists of state Universities. As to size, the situation is rather varied. There are universities with more than 100.000 students (mega-universities) and others with about 10.000 students.

Table 1 – Registered and graduated students in Italian universities

Year	Registered	Graduated
2006	1.810.101	301.376
2005	1.823.886	301.298
2004	1.820.221	268.821
2003	1.814.048	234.939
2002	1.768.295	201.118
2001	1.722.457	171.806
2000	1.688.804	161.484
1999	1.673.960	152.241
1998	1.676.702	140.122

Source: CNVSU – Ninth Report o the state of University System – December 2008

The following charts provide a detailed breakdown of the number of students (table 1), academic staff (tables 2 and 3) and administrative and technical staff (tables 4 and 5) in Italian state universities.

Table 2 – Permanent academic staff in Italian state universities

	Number	Percentage
Full professors	18.150	30,88%
Associate professors	17.433	29,66%
Researchers and assistant professors	23.201	39,46%
TOTAL	58.784	100%

Source: CNVSU – Ninth Report o the state of University System – December 2008

Table 3 – Full time administrative and technical staff in Italian state universities

Category*	Number	Percentage
Category B	7.845	14,70%
Category C	27.399	51,33%
Category D	14.521	27,20%
Category EP	3.405	6,38%
Managerial	209	0,39%
TOTAL	53.379	100%

* the higher the category (from B to managerial), the higher the salary and the responsibility level

Source: CNVSU – Seven Report o the state of University System – October 2006

Table 4 – Full time administrative and technical staff – Detail for area

Area	Male	Female	TOTAL
Accountancy department	6.855	17.624	24.479
Library	1.062	2.533	3.595
Executive secretary	151	86	237
Administrative department	2.576	1.890	4.466
Health and medical area	2.786	3.527	6.313
Technical and IT support	11.511	5.911	17.422
TOTAL	24.941	31.571	56.512

Source: MIUR – Ministry of University and Research – 31.12.2008

Table 5 – Fixed-term administrative and technical staff and other contracts

Area	Fixed-term		Other contracts		TOTAL
	Male	Female	Male	Female	
Accountancy department	388	1.316	532	1.173	3.409
Library	27	130	47	90	294
Executive secretary	107	44	4	1	156
Administrative department	122	233	50	77	482
Health and medical area	0	10	30	35	75
Technical and IT support	528	435	325	352	1.640
Other	217	198	1.903	2.327	4.645
TOTAL	1.389	2.366	2.891	4.055	10.701

Source: MIUR – Ministry of University and Research – Academic Year 2007/2008

4 - Job evaluation in Italian Universities

4.1 - New trends in Italian State Universities

In the 90s, the Italian public administration underwent a real revolution: new private-like approaches were introduced in the public sector.

The buzz word was “aziendalizzazione”, i.e. turn the public sector into some sort of company-like structure. The term “bureaucratic” took on a highly negative connotation. The new actors of public administration, the “managers”, were given the most innovative role within the modernisation process. Before the 90s, managers had to abide by the rules and the law; joint and widespread responsibility was dominant. As a result of the administration overhaul of the 90s, public administration managers are now directly accountable for their actions, they have to guarantee the attainment of pre-set objectives and, more generally, watch over the good functioning of the organisation they work for.

In such a context, “job evaluation” becomes of paramount importance to manage and plan human resources. Several rules and regulations provide for the adoption of some kind of “staff evaluation” in the various sectors of Public Administration.

In the first years of the 21st century, Universities too tried their hand at implementing human resources evaluation systems. Human resources evaluation consists of at least three main aspects (Rebora, 2009):

- job evaluation: results to be expected from a given position;
- performance appraisal: results attained by a given jobholder;
- potentiality assessment: results which could be achieved by a given jobholder.

Italian Universities tend mostly to analyse the first two aspects (Giovannetti, 2005). The system developments and structural changes paved the way to the introduction of “job evaluation” which allows for a systematic description of the organisation, spelling out its new organisational forms.

In this section we quickly describe two of the many case studies related to the organisation of Italian state Universities that we studied in order to improve job evaluation system in A. Avogadro University. The first one (University of Trento) illustrates a state-of-the-art managerial system including monitoring and review which can be regarded as the “finishing point” of any human resources evaluation. The second one (University of Verona) represents a first step towards the adoption of managerial-organisational tools in the field of HR evaluation.

The rationale underlying these second case study predictions (namely, the urge to comply with the collective labour agreement; selection of a “simple” method to use jointly with union representatives) is the same that prodded A. Avogadro University to develop its own job evaluation process.

University of Trento

The University adopted both job evaluation system and performance appraisal. It is an “organisational instrument whose final aim is to optimise human resources on the basis of their aptitudes and skills”³.

Therefore the primary objectives of the evaluation process are:

³ “Handbook of performance and job evaluation” University of Trento, 1st edition in 2002, 1st review in 2003.

- recognising and putting to best use professional skills;
- supporting staff development policies (selection, training, job rotation, career planning, etc.);
- achieving an objective, merit-based equitable system of compensation.

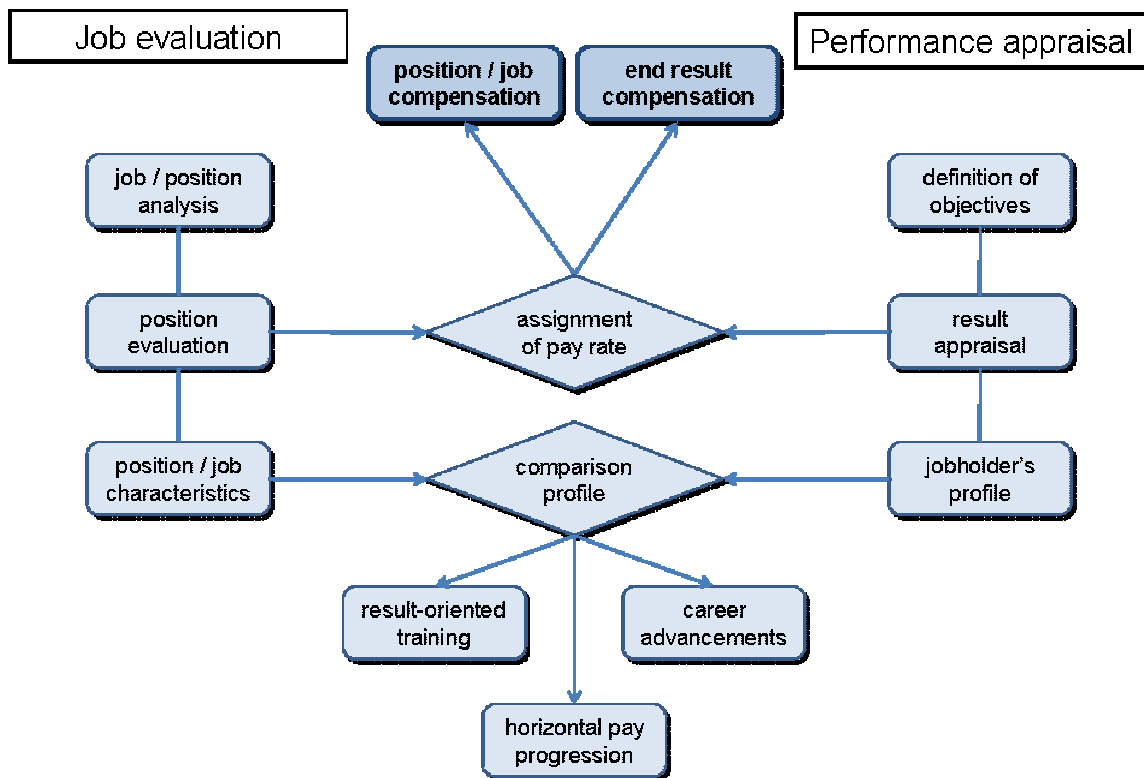
The job evaluation method adopted by the University of Trento is built around two constructs (figure 1):

- evaluation of the managerial and highly qualified positions;
- performance and results appraisal.

The University of Trento used the so-called “factor comparison and point-factor rating” method whereby a number of job factors are selected and ranked on the basis of points assigned to each factor. These points are then converted into rates of pay.

The method does not entail any technical disadvantages and it is popular because it is pragmatic and provides a rationale which helps in the design of graded pay structures.

Fig. 1 – General chart of job evaluation at University of Trento



University of Verona

Job evaluation system is the result of an agreement and its relevant modifications between public authorities and trade unions⁴.

It is a management process based on a competence-based job evaluation system whose aim is to improve the efficiency and effectiveness of both centralised and decentralised structures.

At first the system was applied to central administration structures and then, following a thorough organisation analysis, also to decentralised structures. Competence-based approach has been extended to all relevant job family structures within the university.

The Administration has defined a framework of seven job family structures featuring relevant competence headings.

The Administration acknowledges that this method is not amongst the most innovative and that therefore it shall be applied only as a provisional, temporary instrument.

Such instrument falls within the category of the so-called “job grading”; a non-quantitative methodology whereby tasks are assigned to grades and sub-grades.

The disadvantages are that there are no analytical standards for judging relative worth and it may be difficult to produce a general structure of grades. Nonetheless, there are also some advantages: it is simple, flexible and easily compatible with other systems. These advantages might be the main reasons for choosing this method; in fact it may be of assistance whenever there is urgent need to evaluate HR pending, as was the case in Verona, a system review and its upgrade to more complex and complete systems.

4.2 – The role of Labour Unions

The university administrative and technical staff falls within the purview of the National Collective Labour Agreement (in Italian “Contratto Collettivo Nazionale di Lavoro” or CCNL) and more precisely of the chapter devoted to Universities (“comparto università”). This section outlines, inter alia, the general rules of job evaluation for employed staff.

Our study refers to the CCNL for the year 2002-2005 and more specifically to section 63, paragraph 1 (responsibility allowance) which provides that “public administrations, pursuant to their institutional purpose, identify managerial and competence-based positions as well as responsibility tasks and assess the availability of highly qualified staff, falling under categories B, C and D and entrust them with the above mentioned positions and tasks...”. In addition, the CCNL states that the responsibility allowance has to be clearly correlated to the responsibility level, the complexity level of tasks, the specialization degree, and the innovation level of each position.

⁴ Agreement between public authority and unions signed Oct 25th 2005 “Evaluation system of technical and administrative staff”.

The negotiation between the relevant parties (the administration and the trade unions) as to the content of the CCNL is called “bargaining”. It is nationwide, and therefore is applicable to the entire university system⁵.

The next step is the co-called “complementary bargaining” which occurs on a local scale. Consistent with the rules established by the CCNL and the Budget Law of the State a “fund” is set up for the purpose of the previously mentioned complementary bargaining. The negotiation between the parties, along the lines of the nationwide one, aims at complementing the collective labour agreement and defines all the necessary operational elements for a thorough staff evaluation.

In such a context, job evaluation appears to be the most appropriate instrument for staff evaluation as well as for the management of human resources. However, as said before, the National Collective Labour Agreement for 2002-2005 defines only the general rules for job evaluation in public organizations. Therefore, each state university defines and negotiates its own human evaluation tools with local labour unions. In other words, every state university could have its own specific (and unique) job evaluation system.

5 – Methodology and results

5.1 - Methodology

This paper adopts case study method (Yin, 1984) in order to describe job evaluation system implementation in the central administration of a state university.

Case studies are frequently used in internal organisations analysis and in other business researches (Eisenhardt, Graebner, 2007), particularly for early theory development (Curran, Jarvis, Blackburn, Black, 1993). Case studies become relevant when they combine data collection methods such as archives, interviews, questionnaires and observations (Miles, 1979; Miles, Huberman, 1984; Yin, 1984; Eisenhardt, 1989).

In addition, theory building from cases is usually adopted when the research context is relatively little known (Eisenhardt, 1989), when there is no quantitative data to analyze or when the analysed context is extremely heterogeneous, such as in Italian University system.

Therefore, this paper adopts one single case study method (Siggelkow, 2007), because, first of all, we want to illustrate (Scapens, 1990) how the job evaluation in A. Avogadro University was realized. In fact, as described before, job evaluation systems were born and are nowadays widespread especially in private companies, whereas they have been rarely implemented in public organizations. This gap may due to the public

⁵ At the national level the unions are represented by recognised trade unions (the so called Labour associations or OO.SS); in complementary bargaining (on a local scale) there are also union representatives from each University (RSU).

organizations' features (Borgonovi, 2004): no job evaluation method applied for private companies could be implemented in Italian public organizations without specific adjustments. In addition, the high level of autonomy of each Italian state university affects the job evaluation model's construction: at worst, every university could adopt its own.

In this heterogeneous context, case study becomes the suitable method describing how and why a specific job evaluation model, in line with Italian state universities features, was realized.

5.2 –Background: A. Avogadro University of Eastern Piedmont

A preliminary analysis both of the origin and the structure of the University was conducted in order to better understand the organisational framework of the A. Avogadro University of Eastern Piedmont (named also A. Avogadro University and University of Eastern Piedmont).

Even though there had already been some experiments in the past, it was only in the eighties and nineties of the last century that local authorities decided to develop a pool of university centres in Alessandria, Novara and Vercelli, at first as subordinate faculties and then as autonomous, but networking centres. The University of Eastern Piedmont was officially founded on July 30th 1998 and it was decided to name it after the world famous scientist Amedeo Avogadro.

From an organisational point of view, the A. Avogadro University Central Administration is based in Vercelli, while the faculties are spread over three different provinces (Novara, Alessandria, and Vercelli).

In particular, the University of Eastern Piedmont consists of seven faculties: the Faculty of Economics, the Faculty of Medicine and Surgery and the Faculty of Pharmacy located in Novara, the Faculty of Law, the Faculty of Political Science and Natural Science-Mathematics whose headquarters are in Alessandria and the Faculty of Literature and Philosophy in Vercelli (table 6).

Table 6 – Permanent Academic Staff

Faculty	Number	Percentage
Economics	54	14,40%
Pharmacy	37	9,87%
Law	27	7,20%
Literature and Philosophy	59	15,73%
Medicine and Surgery	83	22,13%
Natural Science-Math	80	21,33%
Political Science	35	9,33%
TOTAL	375	100%

Source: A.Avogadro University Data-warehouse – 31.12.2006

If we compare data and statistics, results show that in spite of its recent inception, the University of Eastern Piedmont is growing at a steady pace. In the first half of 2007 there were more than 10.000 students; graduated students were over 1.500 per year, while new registered students were over 1.600.

As regards academic staff, at the end of 2006 there were 375 permanent professors (tables 6 and 7). As you can see in table 8, the average age of permanent professors is 48,13 (national average: 51,3). Moreover in the A. Avogadro University women are 33,87% (table 9) of the teaching staff (national average: 32%).

Table 7 – Permanent Academic Staff – Detail

Faculty	Full professors	Associate professors	Researchers and assistant professors	TOTAL
Economics	14	12	28	54
Pharmacy	6	17	14	37
Law	14	9	4	27
Literature and Philosophy	22	15	22	59
Medicine and Surgery	33	27	23	83
Natural Science-Math	35	21	24	80
Political Science	13	11	11	35
TOTAL	137	112	126	375

Source: A.Avogadro University Data-warehouse – 31.12.2006

Table 8 – Permanent Academic Staff – Detail for age

Age	Number	Percentage
over 65	18	4,80%
from 60 to 65	37	9,87%
from 55 to 60	56	14,93%
from 50 to 55	52	13,87%
from 45 to 50	66	17,60%
from 40 to 45	61	16,27%
from 35 to 40	54	14,40%
from 30 to 35	28	7,47%
from 25 to 30	3	0,80%
up to 25	0	0,00%
TOTAL	375	100%

Source: A.Avogadro University Data-warehouse – 31.12.2006

Table 9 – Permanent Academic Staff – Detail for gender

Gender	Number	Percentage
Male	248	66,13%
Female	127	33,87%
TOTAL	375	100%

Source: A.Avogadro University Data-warehouse – 31.12.2006

At the end of 2006, 342 subjects were employed in the administrative and technical staff Division: 154 were employed in the Central Administration and 188 in the Faculties and in the Departments (table 10).

As regards employees category division, most of the University of Eastern Piedmont administrative and technical employees (table 11) fall within categories C and D (low-medium level of salary and medium level of responsibility), while, as regards gender, table 12 shows that women are over 65% of the non-academic staff.

Table 10 – Permanent Technical Administrative Staff

	Number	Percentage
Central Administration	154	45,03%
Faculties and Departments	188	54,97%
TOTAL	342	100%

Source: A.Avogadro University Data-warehouse – 31.12.2006

Table 11– Permanent Technical Administrative Staff – Detail for category

Category	Total	Percentage
B	44	12,87%
C	201	58,77%
D	89	26,02%
EP	5	1,46%
Managerial	3	0,88%
TOTAL	342	100%

Source: A.Avogadro University Data-warehouse – 31.12.2006

Table 12 – Permanent Technical Administrative Staff – Detail for gender

Gender	Number	Percentage
Male	117	34,21%
Female	225	65,79%
TOTAL	342	100%

Source: A.Avogadro University Data-warehouse – 31.12.2006

As regards the Central Administration organisation, the Administrative Director is at the helm of this structure and has supervisory power on a number of subordinate Departments.

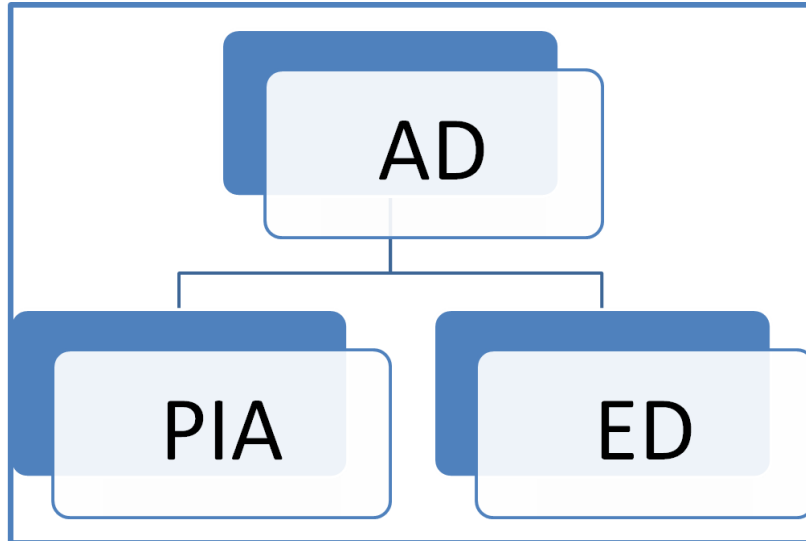
At the beginning of 2006, the University of Eastern Piedmont consisted of the following divisions (chart 1):

Administrative Division (AD), including the Administrative Director's secretary;

Personnel and Institutional Affairs Department (PIA), divided into Technical and Administrative Personnel Office, Teachers Office and Retirement Office, Courses Coordination Office, Quality Office, PhD Office;

Economic Department (ED), comprising of Payment Office, Contracts Office, Budget and Management Control Office, Technical Support Unit.

Chart 1 – Organization chart at the beginning of 2006



5.3 – Case study

The purpose of the present project is twofold: guarantee full compliance with the union agreements and verify the cohesion of the organisation through a job evaluation system which should pinpoint the specific characteristics of A. Avogadro University. Such evaluation takes into account technical and administrative staff only.

The project goals are the following:

- adopt the guidelines of the National Collective Labour Contract and relevant local adjustments;
- provide university central administration with a managerial tool to manage human resources;
- form the basis for the development of a management by objectives system;
- give central administration some concepts about the process reengineering of university organisational lay-out.

This job evaluation system is based on a series of “common principles” agreed by both university top management and labour associations. These agreed principles are coherent with the up-above mentioned goals.

The organizational positions to be evaluated fall within various contractual categories for which the CCNL provides for a “responsibility allowance”.

The disparity between the levels of responsibility and salary paid to central and local government employees (civil servants) in Italy is increasing day by day. People with a medium-to-high level of responsibility receive medium-to-low salaries that are only

slightly higher than those occupying lower positions with no responsibility involved. This is the case of all those people who are responsible for intermediate processes that produce output that is not immediately identifiable and provides support only for the internal parts of this organisation.

The main reason for this anomaly is that salaries in the Italian civil service are primarily determined on the basis of length of service rather than, among other things, in proportion to the real content of responsibility assigned to the individuals concerned. Therefore an explicit form of ad hoc incentive – the responsibility allowance – is necessary to correct this distortion.

In the specific case, A. Avogadro University has identified within its organisation 65 positions of responsibility to be evaluated with a view to establishing a possible salary supplement⁶.

A. Avogadro University has selected, amongst various job comparing methods, a point-factor rating system.

Positions are evaluated according to five factors (table 13) which are common to all jobs⁷:

- Degree of Responsibility;
- Job complexity;
- Size of the Structure;
- Specialisation;
- Innovation.

Table 13 – Factors, dimensions and relative weights

Factors	Per-centage	Dimensions	Percentage
Degree of Responsibility	30	Organisational chart level	40
		Volume of managed financial resources	60
Job Complex-ity	20	Number and significance of relations with external actors	25
		Number and significance of relations with internal actors	25
		Independent Judgement Dimension (standardisation/discretionary power)	50
Size of the Structure	30	Number of collaborators	30
		Output (number of students, teachers, courses, end users, administrative records and book entries, number of files, etc)	70

⁶ Managerial roles are not included amongst the positions to be evaluated.

⁷ The factors and the weights were defined during the negotiations with labour associations.

Specialization	5	Education qualifications required	50
		Membership of a professional association	50
Innovation	15	New service	35
		Procedural innovation (on existing services)	65

Source: our elaboration

Each factor has been divided into dimensions:

- Degree of Responsibility
 - Organisational chart level;
 - Volume of managed financial resources.
- Job Complexity
 - Number and significance of relations with external actors;
 - Number and significance of relations with internal actors;
 - Independent Judgement Dimension (standardisation/discretionary power).
- Size of the Structure
 - Number of collaborators;
 - Output (number of students, teachers, courses, end users, administrative records and book entries, number of files, etc).
- Specialisation
 - Education qualifications required;
 - Membership of a professional association.
- Innovation
 - New services;
 - Procedural innovation (on existing services).

Degree of Responsibility

This factor measures both hierarchical responsibility and responsibility for financial resources.

Organisation chart level

It measures the hierarchical level, i.e. the distance between the top-level positions and the remaining positions. The Rector is at the helm of the “political” structure of a university whereas the Administrative Director is in charge of the Technical and Administrative Staff. He supervises three hierarchical levels:

- management level;
- I level of non managerial responsibility (directly accountable to top managers);

- II level of non managerial responsibility (accountable to I level employees).⁸

Volume of managed financial resources

In order to better evaluate the level of financial responsibility two job traits were analysed: the volume of managed financial resources and the degree of autonomy in deciding what to do with the allotted financial resources (there are positions managing considerable amounts of resources but with very little or no decision-making autonomy). There are other positions which manage limited financial resources but with a considerable degree of spending autonomy.

The correlations between these two job traits give rise to 20 different levels⁹:

- volume of financial resources. Each position is allotted a score on the basis of four grade structures:

- low volume of managed resources;
- medium volume of managed resources;
- high volume of managed resources;
- maximum volume of managed resources.

- level of autonomy as to expenditure. Even in this case grade structure have been identified:

- minimum autonomy;
- low autonomy;
- medium autonomy;
- high autonomy;
- maximum autonomy.

Job Complexity

This second factor measures on the one hand the human relations skills required by the position with respect to both people working within the organisation (colleagues, professors, etc) and outside it (student, suppliers, and institutions). On the other hand, it measures the degree of independent judgement.

⁸ This level of responsibility was not included in the 2006 organisation chart. Nevertheless it was decided to take it into account since the administration intended to introduce a new level of organisational responsibility under its umbrella.

⁹ The chart below shows all the possible correlations.

		<i>Volume of managed financial resources</i>			
		<i>Low</i>	<i>Medium</i>	<i>High</i>	<i>Maximum</i>
<i>Autonomy/Responsibility</i>	<i>Minimum</i>				
	<i>Low</i>				
	<i>Medium</i>				
	<i>High</i>				
	<i>Maximum</i>				

Number and significance of relations with external actors.

This dimension examines relations with people outside the organisation and makes a distinction between routine external relations, i.e. standardised and repetitive negotiating activities that are not significantly representative of the organisation image and the qualified external relations, i.e. activities significantly representing the image of the University. Two levels can therefore be identified within this dimension:

- routine external relations;
- qualified external relations.

Number and significance of relations with internal actors

This dimension refers to relations with people working within the organisation and it can be divided into routine and hierarchical relations, routine and qualified relations and complex and reticular relations.

Routine and hierarchical relations correspond to positions whose activities interface with other organisations' positions in full compliance with procedural restraints or hierarchical requests.

Routine and qualified relations require a significant level of interactions with other positions within procedures defined outside the hierarchical restraint. They therefore require a fairly good amount of negotiation skills.

Lastly, complex and reticular relations, i.e. interactions between different positions, are free from all procedural and hierarchical restraints. They therefore require intensive mediation skills. In this field relations between the Technical and Administrative Staff and the Academic Staff are of particular importance.

Three levels can therefore be identified within this dimension:

- routine and hierarchical relations;
- routine and qualified relations;
- complex and reticular relations.

Independent Judgement Dimension.

This dimension measures problem-solving skills. Three job traits are here correlated in order to better assess the level of independent judgement: work method, complexity of judgement, and control level.

The correlation among these three job traits gives rise to various score levels¹⁰:

¹⁰ The chart below shows all the possible correlations.

- work method. Each position is allotted scores on the basis of three categories:
- procedure: a manner or way of proceeding; a step-by-step course of action;
- policy: a settled course adopted by management to be followed throughout the organisation;
- goals: unexpected end result, generally of long-range duration.
- complexity of judgement: The following classification has been adopted:
- simple activities: operational tasks that do not require specific skills. The assigned tasks are tackled on the basis of past experience and acquired knowledge;
- specific professional competencies: one or more specific professional skills are required;
- complex activities: not only do they require highly qualified skills but also the ability to manage highly complex and competence-based organisation units.
- control level. The position enjoys considerable leeway with respect to the complexity of the managed decision-making processes (see previous point):

Task Control: positions are systematically controlled with respect to assigned tasks and activities undertaken. Such level of control is compatible only with positions operating by procedures, or undertaking simple activities or some typologies of competence-based activities.

Recurrent control of results: control is carried out periodically (monthly or quarterly controls) on end results rather than on activities. This kind of control is exercised on positions undertaking complex activities using by policy or by goals procedures.

mid- to- long term control of end results: project-oriented positions with mid –to- long term objectives that are assessed on a regular basis (yearly or quarterly control). Such a control refers in general to goal-oriented positions undertaking highly complex or highly specialised activities.

Size of the Structure

This factor aims at measuring the organisational size of the position in terms of managed human resources (number of collaborators) and output.

Work method	Procedure	Policy	Goals
Activity & control level			
simple activities/Task Control (TC)			
simple activities/Recurrent control of results (RC)			
simple activities/m- to- l term control of end results (M-LC)			
specific professional competencies/TC			
specific professional competencies/RC			
specific professional competencies/M-LC			
complex activities/TC			
complex activities/RC			
complex activities/M-LC			

The black spaces represent “non compatible” correlations amongst the variables in use.

Number of collaborators

This factor covers the number of collaborators working under the umbrella of a specific position. Three levels can be identified:

- up to 8 collaborators;
- from 8 to 15 collaborators;
- more than 15 collaborators.

Output

Two job traits have been correlated in order to better assess this factor, i.e. output volume and output typology.

There are positions producing highly output volumes of a simple and standardised typology and positions producing low output volumes of a complex and qualified typology. Nine different levels can be identified within this dimension as a result of the two job traits correlation¹¹:

- output volume. Three dimension levels were identified with a view to allotting a score:
 - low output volume. Positions whose output is the result of complex and time consuming production processes (design; management of tenders);
 - medium output volume. Positions dealing with relatively standardised yet non repetitive processes (management of open competitions);
 - high output volume. Positions having to do with highly standardised and repetitive processes yielding in general standardised simple output (accountancy for instance).
- output typology. Even in this case three grade structures were identified:
 - standardized simple output (generally associated with high volumes);
 - qualified simple output (generally associated with medium volumes);
 - qualified complex output (generally associated with low volumes).

Specialisation

This fourth factor considers the professional knowledge required to undertake the role requirement successfully. Knowledge includes both educational qualifications and the experience acquired through vocational training or other work experiences. These two job traits, namely educational qualifications and work experience (with the University

¹¹ The following chart shows all the possible correlations.

		Output Volume		
		Low	Medium	High
Output Typology	standardized simple output			
	qualified simple output			
	qualified complex output			

or other public or private organisations) are interlocked: the position's weight remains unchanged with the further development of experience or the attainment of a higher level of educational qualifications.

Moreover, in order to optimise this factor, it is mandatory to be members of a professional association (for example, the technical service incumbent ought to be a member of the Engineers or Architects professional association).

Required education

As already stated, two job traits were correlated for the purpose of assessing this factor: educational qualifications and work experience.

Twelve different levels can be identified as a result of the correlation of the two job traits¹²:

- educational qualifications:
- secondary school diploma;
- degree;
- master degree.
- work experience:
 - up to 3 years;
 - from 3 to 5 years;
 - from 5 to 10 years;
 - more than 10 years.

Membership of a Professional Association

Membership of a professional Association is evaluated only for those positions whereby it is mandatory to be members of a professional association. Members of an Association might very well hold positions that do not require such membership.

Innovation

The last factor measures propensity to innovation and improvement, and more precisely propensity to product/service innovation (development of new activities / operations to improve position performance) and propensity to process improvement.

Propensity to product/service innovation

¹² The following chart shows all the possible correlations.

		<i>Educational qualifications</i>		
		<i>Diploma</i>	<i>Degree</i>	<i>Master degree</i>
<i>Work Experience</i>	up to 3 years			
	from 3 to 5 years			
	from 5 to 10 years			
	more than 10 years			

Jobholders use their knowledge and innovation skills to develop new “solutions”. Three levels of propensity to innovation can be identified:

low. No particular innovation skills are required.

medium. Jobholders are required to use their skills to look for innovative solutions so as to improve performance levels.

high. Jobholders are expected to have a considerable ability to identify and device innovative solutions to improve the efficiency and effectiveness of their work.

Propensity to process improvement

This dimension, just like the previous one, aims at continuous process and operational procedures improvement. Three levels of propensity to innovation can be identified:

- low. No innovation is required from jobholders. They are simply asked to accept and promote change.

- medium. Jobholders are required to contribute to the search for innovative solutions to improve the quality of processes and operational procedures.

- high. Jobholders are required considerable abilities to identify and device innovative solutions to improve the quality of the service provided.

The weighting of positions is not intended to measure job worth in itself or the performance of the incumbents but rather the weight of the so-called “empty desk”. The evaluation activity was carried out in close cooperation with the Rector, the Central Administration, and the managers of the two main Divisions and the direct involvement of all jobholders in positions to be evaluated. The direct participation of jobholders in the job description (with the awareness of the need to describe the responsibilities of an “empty/vacant” position) enabled us to highlight the peculiarities, complexity and criticalities of the organization. Moreover, their involvement greatly contributed to outlining levels of responsibility and organisational weight of each position.

Job description and job analysis were realized through a group of meetings, in which every subject (Central Administration top management, employees, and labour unions) was involved. During these meetings, collective brainstorming activities and individual interviews were realized. More specifically, individual interviews covered employees holding the middle-management positions (65) we evaluated in this research.

Moreover, due to operative and organizational issues, the team was divided into two homogeneous groups. In fact, as A. Avogadro University of Eastern Piedmont is a three-city university, some activities are duplicated in each place. For instance, in each faculty there are a registrar’s office, a library, an executive secretary, an informatics centre, and one or more research laboratories. Some of these come under the University central offices, for instance registrar’s offices came under the PIA Department, whereas others have only coordination bodies. The activities duplications required also the du-

plication (or the triplication) of interviews, therefore the creation of two operative teams was necessary.

Fig. 2 – Evaluation chart of an organisational position

Real estate department						
Score						
DEGREE OF RESPONSIBILITY	Organisational chart level					
	management level			I level	II level	
	Volume of managed financial resources					
			Volume of managed financial resources			
			Low	Medium	High	Maximum
	Autonomy/Responsibility	Minimum				
		Low				
		Medium				
		High				
		Maximum				
COMPLEXITY OF JOB (JOB COMPLEXITY)	Number and significance of relations with external actors					
	Routine				Qualified	
	Number and significance of relations with internal actors					
	Routine & hierarchical				Routine & qualified	Complex & reticular
	Independent Judgement Dimension					
	Work method			Procedure	Policy	Goals
	Activity & control level					
	simple activities/Task Control (TC)					
	simple activities/Recurrent control of results (RC)					
	simple activities/m- to- I term control of end results (M-LC)					
specific professional competencies/TC						
specific professional competencies/RC						
specific professional competencies/M-LC						
complex activities/TC						
complex activities/RC						
complex activities/M-LC						
SIZE OF THE STRUCTURE	Members of Staff					
	Number of collaborators					
	Produced Output					
			Output Volume			
		Low	Medium	High		
	Output Typology	standardized simple output				
		qualified simple output				
		qualified complex output				
SPECIALIZATION	Education					
			Educational qualifications			
			Diploma	Degree	Master degree	
		Work Experience	up to 3 years			
		from 3 to 5 years				
		from 5 to 10 years				
		more than 10 years				
Membership of a Professional Association						
Membership of a professional Association						
INNOVATION	Propensity to product/service innovation					
	Low			Medium	High	
	Propensity to process improvement					
Low			Medium	High		

As regards the applied report, during the first meetings a preliminary form was made. Then the report was put forward to each subject directly involved in the project. Using the achieved suggestions, the report was adjusted. Figure 2 shows the final report structure and how this instrument was operatively applied¹³.

Afterwards, the obtained data during the interviews were checked and validated by the Central Administration thus guaranteeing consistency to the entire exercise.

The prevailing traits of each position were highlighted with a few exceptions where it seemed more appropriate to put several traits on an equal footing and analyze them in perspective.

The range of scores on a scale from 1 to 1000 varies from a minimum of 577 to a maximum of 807.

Results of job evaluation were used to identify four levels of responsibility and establish a coherent rate of pay for each position, in full compliance with the agreement between the Administration and the Labour Unions.

Point score provides for consistency amongst the various levels. As mentioned, four levels were identified:

- 1) managerial level (which is currently not yet evaluated) in the 1000-901 range;
- 2) managers of complex and strategically important structures (be it other organisational units acting under their umbrella or highly complex and competence-based skills) in the 900-768 range;
- 3) managers of structures dealing with core processes in the 767-640 range;
- 4) managers of support structures (points score lower than 640).

The first level (1000-901 range) was established *a priori*. The other ranges were set wherever the difference in score between two consecutive positions was more than 20 points. The limit benchmark was the average value between two scores.

From an operative point of view, the scores obtained by the 65 positions involved in the implementation of the job evaluation led to the groups shown in Table 14.

Table 14 – Job evaluation - First time adoption (2006)

Level	Number
A	0
B	1
C	17
D	47

Source: our elaboration

¹³ In the example in figure 2, the output dimension was significant for medium output for simple qualified output and complex qualified output. The resulting score represents the weighted average of the points score allotted to the two traits.

Table 14 shows that these groups are not homogeneous in terms of number and levels of responsibility.

Group A includes all the persons with a high level of responsibility, in other words the people who occupy managerial positions. In this particular case, none of the 65 analysed positions fell into this category in 2006.

Only one person was allocated to Group B in 2006, occupying a position demanding high technical skills, high complexity and innovation levels.

Consequently, most of the persons responsible for administrative processes that were involved in the job evaluation fell into the last two groups (C and D).

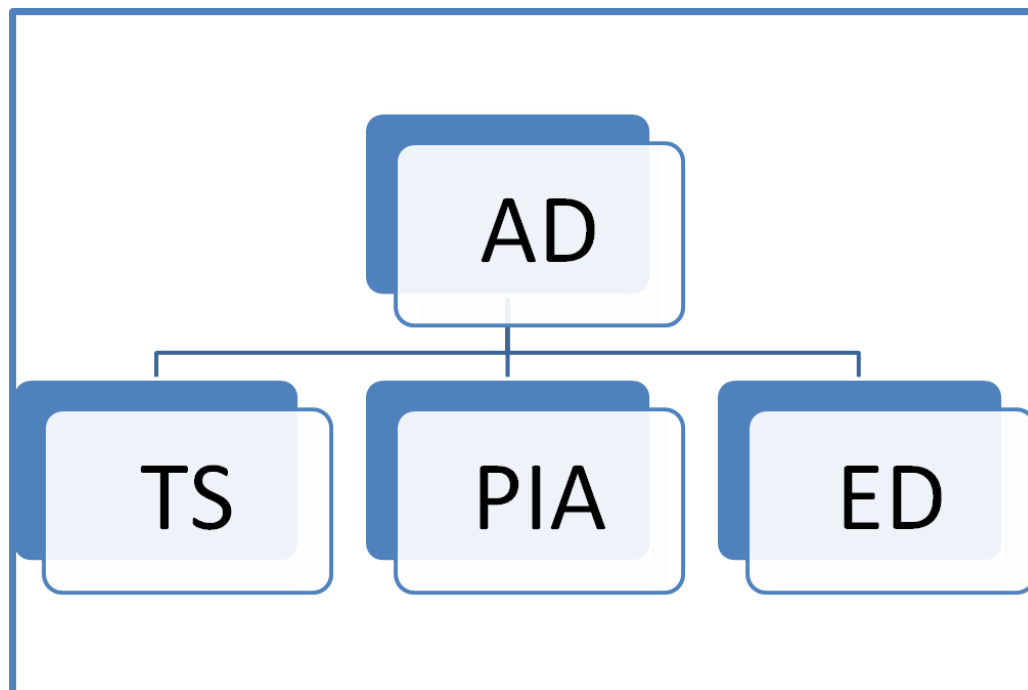
A specific responsibility allowance was identified for each of the three “effective” categories.

For Group B, this allowance corresponded to two months’ gross salary for 2006; with 1.5 months’ gross salary for Group C and one month for Group D.

From the percentage point of view, these allowances were the equivalent of 18% of the annual salary for 2006 of people in Group B, 15% for people in Group C and 11% for people in Group D.

A process of internal reorganisation of central government employees was initiated in 2007 which led, among other things, to the creation of a new “Teaching and students” division (TS) which took over departments (and people) who had previously belonged to the other two divisions (chart 2).

Chart 2 – Organization chart at the beginning of 2007



This change in the organisational structure produced substantial changes in the management of administrative processes and, consequently, influenced the redefinition of the job content and responsibilities of the various people concerned.

This change was also reflected at the time of the mapping of the organizational positions for 2007. While there were no changes to the assessment criteria and the parameters of the classes, there were changes to the numbers of the four groups, as can be seen in Table 15.

Table 15 – Job evaluation in 2007

Level	Number
A	0
B	10
C	11
D	44

Source: our elaboration

There has been an obvious passage of a substantial number of people from Group C to Group B, a symptom of the internal reorganization that has resulted in a clearer definition of the people responsible for the characteristic operating processes.

6 – Conclusions

This paper focused on the implementation of job evaluation system within A. Avogadro University of Eastern Piedmont. The management of the above mentioned University deemed it necessary to adopt a job evaluation system because of the complexity of Italian Universities (and of public organizations at large) and the strong influence exerted by labour associations. This instrument was called for by trade unions (sect. 63 of the CCNL) to assess organisational positions from a more objective point of view. In the meantime, it has proven its worth as a useful tool for HR management. The point-factor rating system was selected. Specifically, each position was evaluated according to the following five factors:

- degree of responsibility;
- job complexity;
- size of the structure;
- specialization;
- innovation.

On the basis of the up-above mentioned factors, next step was the evaluation of each middle-management job positions (65 positions) in the University of Eastern Piedmont. Each factor was analytically valued; the sum of the five factors values deter-

mined the worth for every single position, after which the valued positions were grouped in four ranks of responsibility.

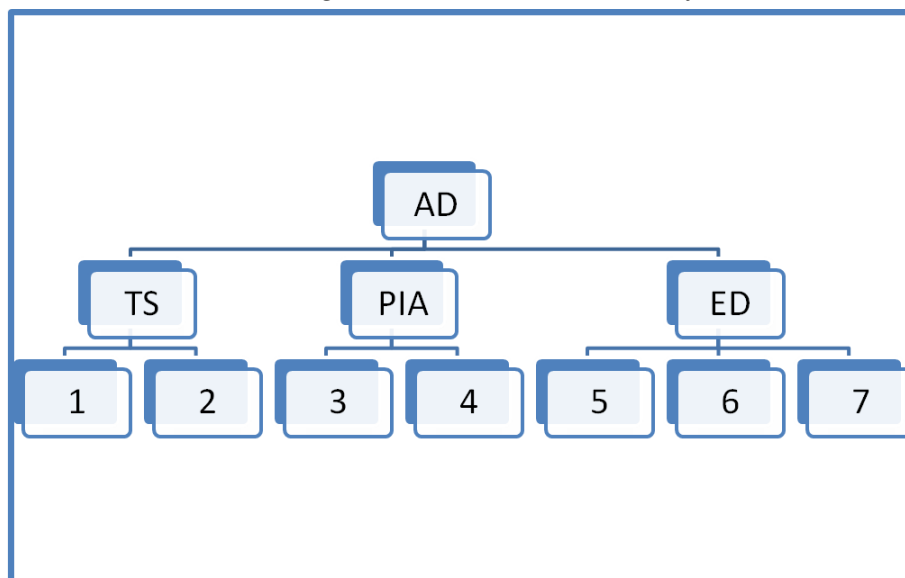
Afterwards, in accordance with labour unions, a specific “responsibility allowance” were defined for each ranks.

The result of this analysis will be kept until relevant organizational, structural and/or procedural changes will be realized.

This case study let us able to take into account the following considerations:

- the adopted methodology was based on the participation of subjects with responsibility roles (middle-management) during job evaluation phases. Therefore, the obtained results (the numerical value of each position) were accepted by every employee;
- during first phases we noticed “resistance” to this new methodology, especially by employees and middle-management. This was caused by previous evaluations made only by top management with subjective methods. These “resistances” ended when the project, with the comparison factors, were communicated to each employee;
- this experience increased the managerial skills of involved employees;
- a full job evaluation implementation needs a strong trade-off between human resources system and management control tools. In other words, there must be coherence between management control mechanism and organizational variables into the organization;
- the realized evaluations during job analysis become an important support for future selective recruitments. Now, in fact, the required characteristics for each position are clearly defined and scheduled.

Chart 3 – Organization chart at the end of 2007



Finally, we highlight that job evaluation is only the first step that University of Eastern Piedmont top management finalized in order to the improve Management by

Objectives. In fact, top management needs to implement a system monitoring also human resources performances and employees capabilities.

In addition, after the job evaluation realized in 2007 (table 15), an internal reorganization was realized. Seven new roles were created (chart 3): this new category covers positions featured by high complexity and high innovation levels. In fact, analyzing 2006 and 2007 job evaluations, a processes reengineering was necessary to improve the University of Eastern Piedmont effectiveness and efficiency. These changes will concern also the administrative procedures streamling, the students' services strengthening, the adoption of ICT, and the elimination of repetitive activities.

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