Towards Improved Information Disclosure on Intellectual Capital in Spanish Universities

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Abstract

The main aim of this study is to demonstrate how important it is for Spain?s public universities to provide information on their intellectual capital in order to satisfy their users? information needs. So, an empirical study was conducted to analyse the opinion held by the Social Councils of Spain?s public universities regarding the need for Spanish public universities to publish information on their intellectual capital when presenting economic, financial and budgetary information. The results of this research show extensive criticism of the current accounting information model used by public universities in Spain.

Index terms— Institutions of higher education, intellectual capital, disclosure, users.

1 INTRODUCTION

uropean higher education institutions are currently immersed in a process of profound change the intention of which is to improve the effectiveness, efficiency and transparency of these institutions with the aim of contributing to the development and improvement of the competitiveness of the European economy. Some of the most significant changes are: new methods for measuring the performance and efficiency of universities; the creation of European-wide accreditation agencies; new assessment processes and systems to ensure quality which in turn strengthen transparency and accounting statements; the institutionalisation of new financing mechanisms; reforms of national legislation to increase the level of universities' independence and the implementation of new tools to improve internal management.

Given this situation the information transparency of university institutions acquires even greater significance. A need exists to conduct a profound reform and modernisation of the university system with regards to the presentation of information which takes into account the new information demands of its users. However, accounting in the public sector has traditionally been somewhat short-sighted since the tools of transparency have always focused on financial and budget information (Martín and Moneva, 2009), ignoring other types of information such as data on the social responsibility of their activities (Melle, 2007) or the key intangible elements in their value creation (Ramírez, 2010 ;Hussi , 2004). Public universities are a prime Author : University of Castilla-La Mancha, Spain, E-mail : yolanda.ramirez@uclm.es example of this, since the information provided focuses on guaranteeing financial control of the organisation without paying attention to the needs of other groups of interest (Martín, 2006). Gray (2006) consider that the information supplied in traditional financial reports is not enough, highlighting the need to establish more extensive communication and accounting mechanisms which take into account the needs of the different groups of interest.

It is useful to remember that accounting research is currently focused on the utility paradigm, which stresses the need for accounting information to be truly relevant to good decision making by its users. Consequently, given the new characteristics of the present socio-economic climate of the European higher education sector, we believe that universities' financial statements should provide all the relevant information on their activities and the key factors of their success -their intangible resources.

In this study we will look at the ways in which the traditional information systems are incomplete and we will give proof of the opinion which exists among the users of university accounting information regarding the need

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to complete the content of the current university financial statements by providing non financial information on intellectual capital. The ultimate aim of this study is to make accounting regulators aware of the necessity of addressing these new information needs, leading to accounts which are adapted to the current social and economic reality.

2 II. THE NEED TO PRESENT INFORMATION ON INTELLECTUAL CAPITAL IN INSTITUTIONS OF HIGHER EDUCATION

The presentation of information about intellectual capital has now become of prime importance in institutions of higher education, principally because knowledge is the main output and input of these institutions. Universities produce knowledge, either through technical and scientific research (the results of investigation, publications, etc) or through teaching (students trained and productive relationships with their stakeholders). Their most valuable resources also include their teachers, researchers, administration and service staff, university governors and students, with all their organisational relationships and routines (Warden, 2003;Leitner, 2004;Ramírez et al., 2007). It is true to say then that universities' input and output are intangible **??**Cañibano and Sánchez, 2008:9).

Intellectual capital, when referred to a university, is a term used to cover all the institution's non tangible or non physical assets, including processes, capacity for innovation, patents, the tacit knowledge of its members and their capacities, talents and skills, the recognition of society, its network of collaborators and contacts, etc. The intellectual capital is the collection of intangibles which "allows an organisation to transfer a collection of material, financial and human resources into a system capable of creating value for the stakeholders" **??**European Commission, 2006:4).

Another reason for the importance and necessity of establishing a model for the dissemination of universities' intellectual capital is the existence of continual demands for greater information and transparency about the use of public money (Warden, 2003), mainly due to the continuous process of both academic and financial decentralisation which institutions of higher education are currently engaged in. As leading producers of knowledge, universities are now key players in the current economy and their activities are therefore subject to much greater scrutiny by the wider community (European University **??**ssociation, 2006:19). Therefore the appropriate presentation of institutional communication has become one of the principal mechanisms by which institutions of higher education render accounts.

The implementation of the European Space for Higher Education promotes the mobility of both students and teachers within the territory of Europe, while at the same time encouraging both collaboration and competition between universities. This environment of greater competition and necessary collaboration means that these institutions are now committed to accessing citizens and transmitting relevant information on their activities. All this could well play an important role in the decision-making processes of the users of the accounting information, for example in the case of potential students choosing where to study.

Another reason why universities have begun to publish information on their intellectual capital is that they now have to compete for funding. Universities are now facing growing competition due to lower funding, which puts them under greater pressure to communicate their results.

It is clear, then, that there is an increased necessity for universities to render accounts. University organisations must be ready to supply objective and relevant information which fully satisfies users' information needs. Universities will have to pay greater attention to their different stakeholders and their respective information interests when designing their communication strategy. It will be necessary to include relevant information on their intangible assets, such as the quality of the institutions, their social and environmental responsibility, the capacities, competences and skills of their staff, etc.

In our opinion the annual accounts are the correct means by which institutions of higher education should provide all the relevant information on their many intangible resources which form the basis of their teaching, research and university extension activities.

However, in most countries there exists no obligation or recommendation for universities to present information on their intellectual capital. The only exceptions are Austria, where universities have been obliged to present an intellectual capital report since January 2007 (Leitner, 2004), and Sweden, where it has been compulsory since 1996 for universities to publish environmental reports (Arvidsson, 2004). This lack of obligation or even simple recommendations from university administration or political authorities on presenting information on intellectual capital will be contrasted in our study by what we see as the need for traditional financial information to be complemented by other indicators relating to the intangible aspects most demanded by the various stakeholders of universities.

3 III.

4 SOME STUDIES RELATED TO INFORMATION PUB-LISHED BY UNIVERSITIES

The current social interest and concern regarding the putting in place of processes which control public universities' rendering of accounts has led to the existence of various studies analysing the information provided in the annual accounts published by institutions of higher education. Most of this research has been conducted in universities in the USA, United Kingdom, Australia and Canada although there also exist isolated examples in New Zealand, Greece and Belgium. In Spain hardly any studies of public universities' accounting practices have been published, the most notable of which are those by Martín (2006) about the content of the annual accounts published by Spain's public universities and the regional analysis conducted by Sierra and Guerra (2003) for the university system of Andalusia.

Table 1 shows a brief review of some of the studies on universities' information publishing practices. The results show that the information provided barely fulfils the basic objectives of the accounting information. The authors highlight the lack of key performance indicators which can be used to make valued judgements on whether the institutions successfully reach their objectives.

5 Gordon et al. (1997) Private US universities

The authors show that regardless of the nature of the institution, the annual accounts place greatest emphasis on financial information while barely providing information on fundamental activities, teaching, research and other complementary services.

Montondon and Fisher (1999) Public US universities.

The results again demonstrate that the programmes of internal audit focus on the development of financial audits to guarantee financial control and the legality of the institutions.

They rarely perform operative audits oriented towards the assessment on the efficiency of the institutions' activities.

6 Coy et al. (2001) US universities

The authors criticise the paradigm of the use of accounting information in institutions of higher education and recommend extending the limits of universities' annual accounts. They The study concludes that the annual accounts submitted by Spain's public universities are mainly oriented towards establishing the organisations' budgetary control rather than satisfying other information objectives and allowing more wide-ranging accounts to be rendered.

7 Machado (2007) Spanish and Portuguese university

The study demonstrates that stakeholders do not only demand financial information relating to universities. They are more interested in being informed about the quality and evolution of actions related to the institutions' specific activities and not only their financial results.

Martín and Moneva (2009) 9 Spanish universities.

8 Period: 2006

The content of the academic and economic reports of the 9 universities is limited to economic issues, providing information on the management of resources which helps to guarantee the institutions' financial control. This information is complemented by other non financial indicators relating to teaching and research activities, while barely touching on environmental indicators.

Source : Compiled by the authors.

IV.

9 EMPIRICAL STUDY

The generalised concern regarding the need to guarantee the information transparency of Spanish universities led us to consider the need to include information on intellectual capital in universities' annual reports. To this end the decision was taken to seek out the opinion of the users of university accounting information regarding the importance they give to completing the information from university financial statements with information relating to the these institutions' intellectual capital. A questionnaire was designed and sent to every member of the Social Councils of Spain's public universities. It was thought that these participants would provide a good example of the attitude of university information users since they represent the different social groups connected with universities.

Once the different opinions were recorded and analysed we would be able to confirm the need for universities to offer information on intellectual capital in their accounting information model. Towards Improved Information Disclosure on Intellectual Capital in Spanish Universities methodology of the study is outlined in the data sheet attached in table 2. Source : compiled by authors.

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i. Defining the population and selecting the sample.

Two important factors were used to select the population to be studied: (1) members of the Social Councils of Spain's public universities were considered to provide a good sample of the feelings of university information users, as they represent the various social groups with links to the universities (2) these members are familiar with the accounting information published by the universities since they are responsible for approving the universities' annual accounts.

Following the analysis of the composition of the Social Councils, the members were divided into these seven groups: 1) university governors (vice-chancellor, general secretary, council secretary and manager), 2) teaching and research staff, 3) students, 4) administration and service staff, 5) representatives of business organisations, 6) representatives of union organisations, 7) representatives of the public administrations.

The population to be studied was therefore composed of the 1.904 members of the Social Councils of Spain's public universities. Replies were received from 247 members, 22.57% of the total. The size of the sample was considered sufficient, since in a binomial population the estimation error would be 5.37% for a reliability level of 95%.

11 ii. Information collection and treatment

The information was collected via an online survey. An email was sent to the members of the Spain's university Social Councils requesting the members to take part in our research.

The questionnaire consists of closed dichotomous questions combined with Likert scales, designed to learn the opinion of accounting information users on the importance of Spain's public universities publishing information on their intellectual capital (see Appendix A).

A descriptive analysis of the replies was conducted according to the characteristics of each of the questions.

12 c) Analysis Of The Results Of The Empirical Study.

There now follows a consideration of the principal results obtained through the empirical study for each of the objectives previously established.

i. Objective 1 : Level of satisfaction with the current university accounting information model.

The first item on the questionnaire is designed to discover the opinion of the users of university accounting information about the suitability of the annual accounts submitted by universities with regard to providing relevant information on the activities they perform. A high percentage, 66.3%, of those surveyed feel that annual university accounts do not provide relevant information on the university's activities.

This result would seem to question, at least partially, the validity of the current model of university accounting information.

If we differentiate between user groups, the results show that the representatives of business organisations (79.3%), students (75%), administration and services staff (73.3%), teaching and research staff (68.2%) and public administrations (66.4%) are the groups which are most critical with the relevance of the information in the universities' annual accounts. However the percentage of members of the group of university governors that feel the annual accounts do not provide relevant information regarding university activities is considerably lower at 41%.

It is especially interesting to note that 51.3% of the representatives of university government do believe that the information provided in the annual accounts is relevant. This result leads us to believe that a gap exists between the opinions of the members of university government, who are responsible for drafting the annual

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accounts, and the external users. So, in order to improve the information contained in the current university financial statements, it is necessary to make accounting regulators aware of the need to extend the information provided in the current accounting statements.

The next question in this block is intended to analyse the type of information provided in the annual accounts published by Spain's public universities. Those surveyed were asked to value on a 5-point Likert scale whether the current university accounting reports delivered information regarding a series of factors (18 items). Table 3 shows the principal descriptive statistics obtained. Source : compiled by authors.

The results obtained show that in the opinion of those surveyed the annual accounts submitted by universities are fundamentally oriented towards budgetary issues, the economic/financial position of the university and legal compliance. The high mean value reached by this type of information (4.19, 3.87 and 3.85 respectively) together with the reduced value of their typical deviations, shows that there is a high degree of © 2012 Global Journals Inc. (US)

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Towards Improved Information Disclosure on Intellectual Capital in Spanish Universities consensus among all those surveyed regarding how universities' annual accounts place great importance on

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complying with legal obligations, especially in budgetary matters. However, the replies obtained lead us to conclude that universities' annual accounts provide very little information on relationships with customers (students and private and public organisations) and employees, or on social and corporate responsibility, the socio-economic impact of the universities' activities, the level and quality of the services provided, the quality of teaching and research or on the efficiency of resource management.

Insisting once again on the usefulness of universities' annual accounts, those surveyed were asked to value on a 5-point Likert scale the importance they give to the current financial statements submitted by Spain's public universities regarding the satisfaction of the different users' information needs. In global terms the following results were obtained (see Table 4). Source : compiled by authors .

As can be seen in the table above, those surveyed highlight the fact that the current annual accounts published by universities barely cover the information needs of the different users. They are especially critical about the fact that the annual accounts offer very little relevant information for individual citizens, business organisations, students (current, potential and ex-students) and for public and private organisations collaborating on scientific and technological projects to use in their respective decision Towards Improved Information Disclosure on Intellectual Capital in Spanish Universities M arch 2012 making processes. As well as analysing the general opinion of those surveyed regarding the satisfaction of the information needs of all the users of universities' accounting information, in this block it is interesting to learn the opinion of each user group (public administrations, employees, students, business organisation and university government) regarding the suitability of the information published in Spain's public universities' annual accounts for satisfying their information needs.

It was found that 51.4% of the representatives of public administrations, 59.5% of employees (teaching and research staff and administration and service staff), 68.4% of students and 77.7% of business organisations feel that the current financial statements submitted by universities have little or no relevance to satisfying their needs, while this percentage is only 24.3% in the case of university governors. The diagram below shows the mean value given by these different user groups to the importance of the current university financial statements in satisfying their information needs (see Figure 1). Source : compiled by authors. The results recorded in the diagram above once again show that the representatives of business organisations are the most critical about the usefulness of the current annual accounts for satisfying their information needs, followed, at some distance, by students and the representatives of public administrations. In contrast, the representatives of university government do find the information provided in the annual accounts to be useful.

ii. Objective 2 : The importance given to the presentation of information on intellectual capital in universities' accounting reports.

The second block of the questionnaire includes a set of questions related to the importance users give to the inclusion of information on intellectual capital in universities' accounting statements. A list of intangible assets relating to human capital, structural capital, structural and relational capital is included so as to ascertain to what degree it is relevant to publish this information.

A high percentage, 89.1%, of those surveyed in our study showed great interest in Spain's public universities presenting information on intellectual capital. They felt that publishing this information would make the content of the current university financial statements more relevant. Only 4.9% of those surveyed consider that publishing information on intellectual capital increases the ambiguity and the lack of relevance of the information included in the current accounting statements.

Lastly, it was our intention to learn the opinion of the users of university accounting information about which intangible assets it is most important to publish information. This would help to justify the need to include this information in the university accounting model.

In order to fulfil this objective those surveyed were given a list of intangible elements corresponding to the three blocks of intellectual capital and were then asked to value on a 5-point Likert scale the importance they gave to universities publishing information on these items. On the scale 1 corresponds to "not at all important" and 5 "very important".

In order to identify the intangible assets about which users of university accounting information

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consider it relevant or very relevant to publish information, we set as a requirement that the assets had to reach a mean value or a median equal or higher than 4 points in combination with a minimum 25 of 4 points and a minimum 75 percentile of 5 points. In short, the intention is that most of the distribution of values is concentrated in high scores close to 5 points.

17   ? Human capital block

Human capital is the sum of the explicit and tacit knowledge of the university staff (teachers, researchers, managers, administration and service staff) acquired through formal and non formal education and refresher processes included in their activities.

Table 5 shows the frequencies obtained by each of the 12 intangible elements related to the human capital block about which those surveyed were questioned.

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One of the first conclusions that can be drawn from the data is the extremely high level of importance given to publishing the items of human capital. Most of the intangible assets give a mean value higher than 4. There are three exceptions -typology of university staff (3.66), professional qualifications of administration and service staff (3.68) and leadership capacity **??**3.97).

The analysis of the statistics of mean, median, mode, range, typical deviation, percentile 25 and 75 allows us to state that those surveyed consider the publication of the following intangible assets to be relevant or very relevant: research capacities and competences, teaching capacities and competences, scientific productivity, academic and professional qualifications of teaching and research staff, efficiency of human capital, training activities, mobility of teachers and researchers and teamwork capacity.

? Structural capital block.

The second of the blocks of intellectual capital included in our survey, structural capital, consists of intangible assets. Structural capital is the explicit knowledge relating to the internal process of dissemination, communication and management of the scientific and technical knowledge at the university. Structural capital may be divided into: ? Organisational capital: this refers to the operational environment derived from the interaction between research, management and organisation processes, organisational routines, corporate culture and values, internal procedures, quality and the scope of the information system, etc. ? Technological capital: this refers to the technological resources available at the university, such as bibliographical and documentary resources, archives, technical developments, patents, licences, software, databases, etc. Table **??** shows their frequencies. Source : compiled by authors.

It is important to note once again the high mean value given to the publication of information relating to the different intangible assets included in the structural capital block. From the analysis of the statistics we can classify as relevant or very relevant the inclusion of information on the following intangible assets: effort in innovation and improvement, intellectual property, management quality, research management and organisation, technological capacity, installations and material resources for research and development, organisation of scientific, cultural and social events, information systems, evaluation and qualification processes and activities within the institution, teaching management and organisation and finally installations and material resources supporting pedagogical qualification and innovation.

19   ? Relational capital block

Relational capital refers to the extensive collection of economic, political and institutional relations developed and upheld between the university and its non academic partners: enterprises, non profit organisations, local government and society in general. It also includes the perception others have of the university: its image, appeal, reliability, etc.

This block analyses the importance university accounting information users give to the publication of information concerning intangible assets within the relational block. The questionnaire includes 16 intangible assets reflected in the following descriptive statistics (see table 7). The first interesting result is the high mean scores awarded to all the intangible assets included in the relational block. The lowest score was 3.94 for the intangible asset, "relations with the media". The other intangible assets in this block achieved values above 4 and in 43.7% of the cases the value was higher than 4.5. These high values show that, a priori, the intangible assets related to relational capital are those for which publication is most relevant.

According to the results obtained from the analysis of the different statistics it may be concluded that the users of the accounting information of Spain's public universities feel that it is relevant to publish all the assets included in the relational block of our © 2012 Global Journals Inc. (US)

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Towards Improved Information Disclosure on Intellectual Capital in Spanish Universities questionnaire, except for information concerning relations with the media.

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V.

22 CONCLUSIONS

From the results of the empirical study we conducted we found that simply publishing the current universality financial statements is not enough to properly satisfy the information demands of users. We consider that this information needs to be completed with the inclusion of information related to the intellectual capital of institutions of higher education. Publishing information related to intellectual capital will be an exercise in transparency for the public universities and will facilitate users' access to information which is relevant to their decision making processes.

The results obtained in our study show that there exists much criticism of the current accounting model of Spain's public universities. These results are similar to those obtained in other studies conducted in the Spanish and European university community.

In the opinion of those surveyed the annual accounts presented by Spain's public universities are largely oriented towards information concerning the universities' budget, economic and financial situation and legal compliance. These accounts offer extremely little information regarding aspects such as the level and quality of the services provided, relations with customers (students and public and private organisations) and employees, information about social and corporate responsibility, teaching and research quality or about the efficiency of resource management. We can conclude, then, that much the same as in the business world or in other public organisations, the accounting information provided by universities does no more than satisfy the minimum legally required needs of the users of this accounting information. It is therefore considered of prime importance to make the accounting regulators aware of the need to improve the current model of accounting information since external users clearly feel that their information needs are not satisfied by the current accounting statements.

Indeed a high percentage of those surveyed -89.1%-feel that in order to increase the relevance of universities' accounting statements, it is essential to provide information on intellectual capital. This statement is further supported and reinforced by data which demonstrate the extreme importance users of universities' accounting information give to the publication of the different intangible assets in the human, structural and relational blocks.

All these results lead us to recommend that universities include in their accounting statements the information on intellectual capital demanded by the different users. [1] [2] [3]
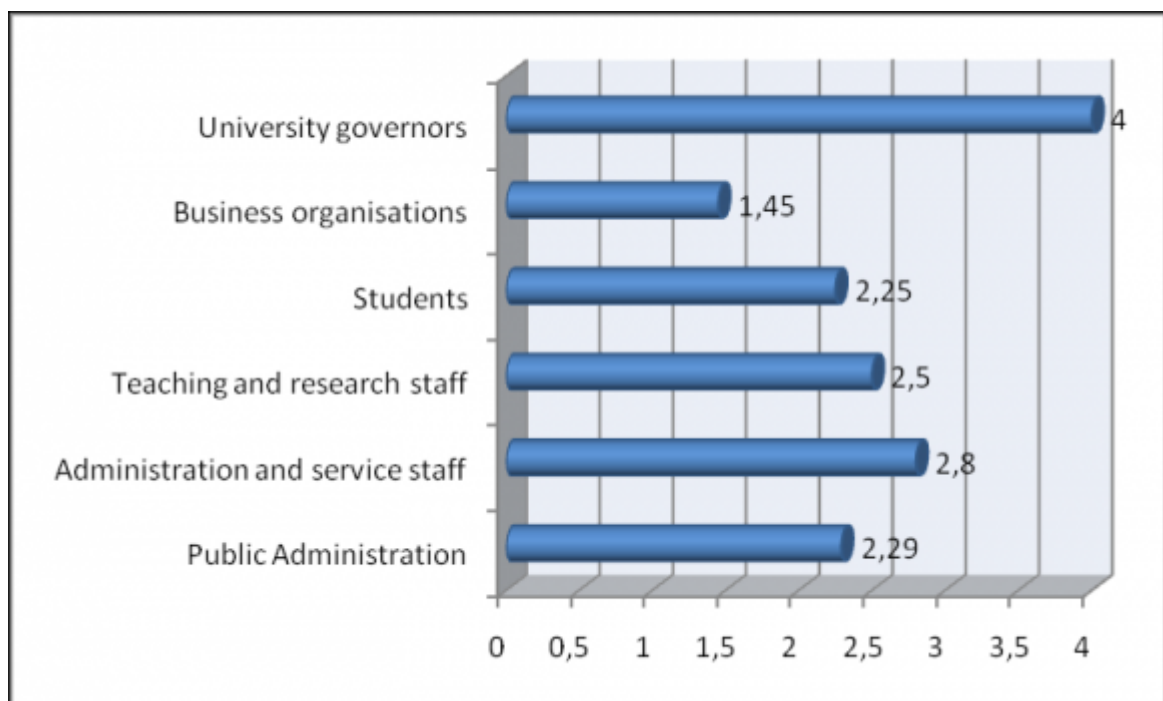
Figure 1:

Figure 2:

Survey on the publication of information on intellectual capital in universities

I. Participant profile

What group do you represent in the social council? [dropdown ▼]

What university do you represent in the social council? [dropdown ▼]

II. Satisfaction with the current model of university information

	Yes	No	Not Sure
Do you think that the annual accounts presented by universities (balance, financial results account, budget statement and annual report) provide relevant information on the activities conducted by the university?	○	○	○

III. Evaluate whether universities' annual reports provide information on the following items (1: no information, 5: a lot of information)

	1	2	3	4	5
University's performance	○	○	○	○	○
Legal compliance	○	○	○	○	○
Efficiency of resource management	○	○	○	○	○
University's economic/financial position	○	○	○	○	○
Implementation level of established programmes	○	○	○	○	○
Budgetary information	○	○	○	○	○
Achievements made in providing public services	○	○	○	○	○
Effectiveness of institution's objectives	○	○	○	○	○
Level and quality of university services	○	○	○	○	○
Social and corporate responsibility	○	○	○	○	○
Socio-economic impact of university's activities	○	○	○	○	○
Basic characteristics of courses (cost of qualifications, employment opportunities, graduates satisfaction, etc.)	○	○	○	○	○
Relationship with university staff	○	○	○	○	○
Customer relations (students and public and private organisations)	○	○	○	○	○
Execution of teaching and research activities and complementary services	○	○	○	○	○
Quality of teaching, research and services	○	○	○	○	○
Organisational structure	○	○	○	○	○
Technological aspects	○	○	○	○	○

IV. Evaluate the importance of the current financial statements submitted by universities in satisfying the information needs of the following users (1: not at all important, 5: very important):

	1	2	3	4	5
Public organisations (central and regional governments)	○	○	○	○	○
Political parties	○	○	○	○	○
External control organs	○	○	○	○	○
University government (Chancellor's office, Board of Governors, Faculty, Social Council, Consultative Board)	○	○	○	○	○
University Coordination Council	○	○	○	○	○
Assessment/accreditation agencies	○	○	○	○	○
Students (current, potential and ex-students)	○	○	○	○	○
Employees	○	○	○	○	○
Individual citizens (voters, tax payers, customers)	○	○	○	○	○
The general public	○	○	○	○	○
Business organisations	○	○	○	○	○
Public and private organisations which recruit graduates	○	○	○	○	○
Donators and resource providers	○	○	○	○	○

V. What is your opinion regarding the publication of information on intellectual capital?

	Yes	No	Not Sure
It is important to provide information on intellectual capital because it increases the relevance of the information contained in the current accounting statements.	○	○	○
Informing the different users about intellectual capital increases the ambiguity and lack of relevance of the information contained in the current accounting statements	○	○	○

VI. What level of importance do you give to the publication of information by the university on the following items of human capital? (1: not at all important, 5: very important):

	1	2	3	4	5
Typology of university staff (historical data of growth or decrease in staff, age structure of staff, contractual conditions, etc.)	○	○	○	○	○
Academic and professional qualifications of teaching and research staff (% of doctors, % civil servants, etc.)	○	○	○	○	○
Mobility of teachers and researchers (% of teachers on fellowships, etc.)	○	○	○	○	○
Scientific productivity (books, articles published, etc.)	○	○	○	○	○
Professional qualifications of administration and services staff	○	○	○	○	○
Mobility of graduates Efficiency of human capital	○	○	○	○	○
Teaching capacities and competences (pedagogical capacity, teaching innovation, teaching quality, language proficiency, etc.)	○	○	○	○	○
Research capacities and competences (research quality, participation in national and international projects, % of doctor, six-year research periods, etc.)	○	○	○	○	○
Teamwork capacity	○	○	○	○	○
Leadership capacity	○	○	○	○	○
Training activities	○	○	○	○	○

VII: What level of importance do you give to the publication of information by the university on the following items of structural capital? (1: not at all important, 5: very important):

	1	2	3	4	5
Installations and material resources supporting pedagogical qualification and innovation	○	○	○	○	○
Installations and material resources for research and development	○	○	○	○	○
Evaluation and qualification processes and activities within the institution	○	○	○	○	○
Structural organisation	○	○	○	○	○
Teaching management and organisation (academic networks, teaching exchanges, teaching incentives, etc.)	○	○	○	○	○
Research management and organisation (internal communication of results, efficient management of research projects, research incentives, theses read, etc.)	○	○	○	○	○

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Figure 4:

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Figure 5: Table 1 :

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Analysis group	Users of accounting information from Spain's public universities
Universe	Members of the social councils of Spain's public universities
	(1.094)
Size of sample	247
Information collection technique	On line survey
Period of field work	May-July 2010
Average time per survey	7 minutes 45 seconds
Software	SPSS ® v. 17

Figure 6: Table 2 :

3

Measu rement	Typical deviat- ion		Percentiles	
			25	75

Figure 7: Table 3 :

4

	Mean	Typical deviation	Percentiles	
			25	75
University government (Chancellor's office, Board of Governors, Faculty, Social Council, Consultative Board)	3,32	1,12	3	4
External control organs	3,03	1,09	2	4
Investors and creditors (banks, credit institutions, investors, insurance companies, etc.)	2,98	1,00	2	4
University Coordination Council	2,90	1,05	2	4
Assessment/accreditation agencies	2,89	1,04	2	4
Public organisations (central and regional governments)	2,68	1,20	2	4
Donators and resource providers	2,68	0,92	2	3
The media	2,45	0,95	2	3
Public or private organisations collaborating on scientific and technological projects	2,34	1,10	1	3
Political parties	2,23	1,06	1	3
Employees	2,13	1,18	1	3
Students (current, potential and ex-students)	2,05	1,08	1	3
Public and private organisation which recruit graduates	2,00	1,01	1	2
Business organisations	1,93	1,07	1	2
The general public	1,90	0,93	1	2
Individual citizens (voters, tax payers, customers)	1,87	0,98	1	2

Figure 8: Table 4 :

5

INTANGIBLE ASSET	Mean	Median	Mode	Typical deviation.	Range	Percent 25	Percent 75
Typology of university staff (historical data of growth or decrease in staff, age structure of staff, contractual conditions, etc.)	3,66	4	4	0,76	3		4
Academic and professional qualifications of teaching and research staff (% of doctors, % civil servants, etc.)	4,52	5	5	0,60	3		5
Mobility of teachers and researchers (% of teachers on fellowships, etc.)	4,08	4	4	0,87	3		5
Scientific productivity (books, articles published, etc.)	4,54	5	5	0,68	3		5
Professional qualifications of administration and service staff	3,68	4	4	0,99	4		4
Mobility of graduates	4,30	4	5	0,73	3		5
Efficiency of human capital	4,49	5	5	0,74	3		5
Teaching capacities and competences (pedagogical capacity, teaching innovation, teaching quality, language proficiency, etc.)	4,57	5	5	0,66	3		5
Research capacities and competences (research quality, participation in national and international projects, % of doctor, six-year research periods, etc.)	4,63	5	5	0,62	2		5
Teamwork capacity	4,04	4	4	0,79	3		5
Leadership capacity	3,97	4	4	0,79	3		5
Training activities	4,44	5	5	0,71	3		5

[Note: Source : compiled by authors. (*) 5-point scale: (1: not at all important, 5: very important).]

Figure 9: Table 5 :

6

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INTANGIBLE ASSET Installations and material re-
sources supporting pedagogical qualification and inno-
vation Installations and material resources for research
and development Evaluation and qualification processes
and activities within the institution Structural organisa-
tion Teaching management and organisation (academic
networks, teaching exchanges, teaching incentives, etc.)
Research management and organisation (internal com-
munication of results, efficient management of research
projects, research incentives, theses

Mean Median Mode 4,09 4 4 4,40 4 5 4,

read, etc.)
Organisation of scientific, cultural and social events   4,40   4 5

Figure 10: Table 6 :

7

INTANGIBLE ASSET	Mean	Median	Mode	Typical deviation.	Percentile Range 25	Percentile 75
Efficiency of graduate teaching (average duration of studies, dropout rate, graduation rate, etc.)	4,53	5	5	0,64	3	4 5
Student satisfaction	4,61	5	5	0,68	3	4 5
Graduate employability	4,75	5	5	0,50	3	5 5

Figure 11: Table 7 :

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