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Achieving Competitive Advantage through Quality Management

 Springer

Chapter 13

Quality in the Spanish university system: challenges and opportunities

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Abstract

Purpose of paper: Today the search for quality is present in all public and private activities. Public managers are required to make maximum use of their budgets. It is necessary “to do more with less”. The institutions of higher education (IHE) are no exception to this general requirement. The IHE are immersed in internal and external processes to achieve the highest quality in their services. The evaluation of IHE should be a common practice. This in turn requires a proven methodology, ensuring the highest quality of the services offered. Therefore, the participation of IHE in curricula and assessment projects, allows awareness of weaknesses and threats, and turns them into strengths and opportunities. The aim of this article is to point out the relevance of these issues for the IHE.

Design, methodology and approach: This will involve a theoretical approach to the concept of quality in general, to subsequently deepen the implementation and outcome of quality systems in the IHE. In addition, the great potential of this important tool in the management of public resources will be designated, as well as the main limitations encountered. This study is complemented by determining the applicability of quality systems in the IHE in Spain, through a study of the main initiatives undertaken at these institutions, completing the work with a series of conclusions based on what is stated in the preceding paragraphs.

Findings: The approach of this article will allow analysis and reflection, both from a theoretical and practical perspective of what quality should be in the IHE, conducting a comprehensive review of the most recent economic literature on these issues. At the same time, some of the most important results of the introduction of quality procedures in IHE will be presented.

Theoretical and practical implications: This article aims at defining the actions that are being carried out in the IHE and their potential benefits, both for educational institution users and funders of this public service. It should not be ignored that IHE must manage their resources in the best possible way and this happens, inevitably, to ensure quality in all the processes that are carried out. Efficiency is a maxim that must be met and therefore the mechanisms that guarantee quality must be present on the day-to-day basis of the IHE. This is even more important when significant budgetary restrictions are evident. Those institutions that manage their resources better and maximize their results from a given level of resources are examples of reference for the rest of IHE.

Research implications: The implications of this article are of interest, both from a theoretical and practical perspective, since the results are widely used in the reality of the Spanish University. The results

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will help determine to what extent the IHE in Spain are on the road to ensuring the highest quality of the services offered. The IHE should take into account the contents of this article in order to improve their internal action plans. Without a doubt, this will result in improved academic, research and transfer results, but at the same time, ensuring more and better resources in the financing of these institutions.

Originality and value: In addition, this article will indicate the degree of adaptation of the IHE in Spain to the growing demand for quality by educational administrations, ensuring added value and originality to the objective of this publication.

13.1 Introduction

For more than two decades all public activity has been immersed in a continuous process of seeking quality in products and services that are offered. The institutions of higher education are not excluded from this situation and have the need and duty towards their citizens to evaluate the services provided. The pursuit of quality in general, and excellence in particular, is a key principle of educational institutions.

The aim of this article is to describe the concept of quality from the perspective of higher education institutions and to define the actions that are carried out from a national and European perspective. To do so, after this introduction, the second section of this article, describes the concept of quality from a general perspective. In the third section, a quality approach to higher education is presented. In the fourth chapter, quality systems are analyzed from the perspective of the institutions of higher education. The fifth chapter deals with the situation in the Spanish case. Finally, a set of recommendations are designated.

13.2. The concept of quality: quality objective and perceived quality

There is no single definition of quality. Perhaps the most widespread definition of quality is by Zeithaml (1988), stating that quality is a complex, subjective and changing issue. Thus, quality is something multidisciplinary consisting of several components: i) evaluative, that enables the establishment of value judgements in relation to quality from various alternatives; ii) comparative, which allows the comparison between different options, by means of different levels or degrees of quality²; iii) multidimensional, which requires that for something to be of quality, it should have certain properties or characteristics; iv) abstract³, which means that the quantitative and qualitative measurement of quality should allow for organization and information processing, and v) subjective, since the evaluation of the quality level may be to a great extent, a fundamentally subjective process, and therefore, highly conditioned to the characteristics of each individual⁴.

Taking into account the multiple dimensionality of the concept of quality, there are different perspectives for analysis (Zeithaml, 1998, Oliver, 1999, Lapierre, 2000, Huber et al., 2000, Kashyap and Bojanic, 2000, Petrick, 2002). According to Zeithaml (1988), quality can be distinguished between objective quality and perceived quality.

Objective quality focuses on the technical aspects of the process, which are easily measurable, both from a qualitative and quantitative perspective. So, it is necessary to establish some kind of objective reference, enabling to point out which particular product or service is more or less closest to what is considered an ideal standard. For example, a particular product made with more expensive raw materials or with a better design is supposed to be of good quality, due to being technically superior to the rest. Meanwhile, perceived quality refers to the assessment of the superiority of a product or a service from the point of view of the demand. For example, if consumers perceive that a particular product is of quality, the price will act as a differentiating element, since it is seen as a product of quality in business terms.

While the first analysis on quality came from the objective side, gradually the subjective perspective gained ground, especially due to important marketing campaigns, trying to convince consumers of the benefits of the products. Moreover, if proven that the objective quality is inferior to the subjective one, it will be necessary to focus on the technical improvements of the product or position it in the market segment more in accordance with its properties. If the subjective quality is inferior to the objective one, marketing campaigns that improve the perspective of the product from the viewpoint of the consumer must be designed. Currently, both approaches exist side by side, so a quality integrator concept should be aimed at (Muñoz et al, 2004).

² Therefore, the level of quality can vary in different situations (Woodruff, 1997, Holbrook, 1999, Lapierre, 2000).

³ This appreciation also appears in Dodds et al. (1991).

⁴ This approach is also contained in Babin et al. (1994).

13.3 The concept of quality in higher education

Until the decade of the sixties of the XX century, it was common to assume that more years of education were sufficient guarantee to improve the productivity of individuals and at the same time, qualify them better for labour challenges. In this context, the institutions of higher education (IHE) played the role of the culmination of knowledge, which there was no doubt about. However, what was happening within the IHE was unknown, since society assumed that was the universities' own role. It is true that the quality of the IHE was also analysed, but this exercise was carried out from a totally different perspective to the current one. The measurement of the quality of IHE came from merit, tradition and prestige of the institution. The use of performance indicators and efficiency of processes were rather secondary.

The situation since then changed significantly. The economic and social scenario was transformed; therefore traditional teaching and research approaches were no longer valid. The transformation from an elite University to an universalist university system involved a change in the performance and requirements of the university. To this, we must add increasing competition from formative offers similar to those offered by the university. The IHE had to adapt to the new situation.

This process of adaptation introduced the new term of accreditation, which meant that it was not possible to offer what had been offered until then. The right to offer certain studies, conduct research, sign contracts with companies, etc had to be "earned". Furthermore, the IHE are immersed in an unstoppable process of internationalization, where distance teaching has a major presence, which implies global competition. All these elements involve facing new challenges that can be overcome only if the quality of IHE⁵ is evaluated correctly.

In the same case as with the definition of quality, it is very difficult to establish a single concept of what should be understood by quality in higher education (Calvo de Mora and Criado, 2005, 2008). This limitation is due to the fact that it is a question with a multidisciplinary perspective, by interacting different beneficiaries (students, companies, institutions...), as in the origins of these quality measurement techniques, which we must not forget were born in the business world and were exported to the management of IHE.

This process of translation of business skills to the IHE is a very complex task and does not always achieve the desired success (Harman, 1996). Even taking into account these limitations, several approximations to what should be understood as quality in higher education and the impact that its application can have (Winn and Cameron, 1998) on the IHE, can be mentioned. Thus, the IHE could benefit from the introduction of incentive mechanisms that would promote an improvement in the efficiency and quality of university activities (Bricall, 2000).

Regardless of the approach used for the introduction of quality systems in the IHE, there are elements that are always present. Quality understood as a measure of production, must take into account the resources of IHE, the execution of processes (IHE can be considered a multiproduct institution) and the results achieved. It is therefore the search for maximum efficiency through an input-output analysis. Considering this approach, the functioning of IHE is to a great extent similar to that of a company, since it has some of the most important basic features of an enterprise system. However, and unlike business management, where everything is easily quantifiable, IHE find quite a few problems when it comes to reliable and uniform measures for resources used, processes implemented and results.

In parallel, a second approach to the functioning of IHE (Lindsay, 1992) seeks to know the opinions on the quality of the services offered from interest groups (students, teaching and research personnel, staff administration and services, companies and public and private institutions, etc.). In the same vein are the works of Vroeijenstijn (1992), Middlehurst (1992), Harvey and Green (1993). In these investigations the need to consider quality ratings of IHE from the perspective of interest groups is highlighted.

In Harvey and Green (1993), five perceptions of the concept of quality that can be applied to IHE are described: i) quality as excellence, satisfaction of requirements and exclusivity; ii) quality as equivalent to the absence of defects; iii) there will be quality if the service conforms to the objective for which it was designed; iv) quality as an economic efficiency and v) qualitative change (which understands quality as the achievement of some improvement). In Winn and Cameron (1996) an interesting categorization of the concept of quality for IHE is established from a series of indicators: i) human and physical resources; (ii) contents transmitted to society and/or the scientific world; (iii) the results of the institution; (iv) educational impact on university collectives; v) efficiency of the institutions vi) needs of users and finally, vii) achievement of the prestige of the higher institution.

⁵ In recent years, the European Education System has tried to introduce quality indicators at all levels, changing a much more abstract concept of quality to something more measurable and concrete, by using quantitative and qualitative methods.

The World Conference on higher education in Paris, in July 2009, indicated the convenience of putting into practice in all the higher education system, national mechanisms of regulation and quality assurance of the services offered by universities. Only then will excellence and equitable access be achieved and it will promote graduates to have quality training.

In the Spanish case (Bricall, 2010), states that a higher education of quality must achieve a number of objectives: i) it is necessary to have an internal and external assessment system of the IHE, which transmits information to the agents that participate in the financing of universities; ii) to achieve academic excellence, it is necessary to evaluate the activities carried out by the IHE; iii) it is vital to improve the efficiency and management of the resources of IHE; iv) minimum quality standards should be achieved for the accreditation of IHE services⁶; v) it is necessary for government teams to achieve certain objectives within the vision and mission of the IHE approach and finally vi) satisfy the needs of the users.

Due to all the above, this exercise in pursuit of quality requires up-to-date and continuous information that determines strengths and weaknesses, so that the IHE are able to establish the areas of improvement. Failure to do so, would cause the evaluation process to become a bureaucratic formality, very far from what is expected of the quality systems of IHE (Pérez, Rahona and Vaquero, 2003, 2004).

13.4 Analysis of quality in higher education

The first attempts to introduce procedures that evaluate the quality of IHE were related to the university administration and the management of human resources. Over time, evaluation mechanisms of teaching quality were introduced (Klaus, 1997). University quality should be understood as a need to improve the provision of the service, demanding a commitment from public managers towards continuous improvement, management of key processes at an educational level and the establishment of quality indicators (Del Campo et al., 2013)

In the last two decades, a special interest is shown at international level, by trying to guarantee the quality of higher education studies. Thus, in the communiqué of September 8, 2009, the World Conference on Higher Education of UNESCO states in its preamble that "at no other time in history has the investment in higher education been more important than now, due to its condition of primordial force for the construction of inclusive and diverse societies of knowledge, and to foster research, innovation and creativity". The same document states, in the section on access, equity and quality of higher education that "increasing access poses a challenge to the quality of higher education. Quality assurance is an essential role in contemporary higher education and must have the participation of all stakeholders. It is a task that requires both the implementation of systems to ensure the quality of evaluation guidelines, as well as the promotion of quality culture in establishments."

As it has been proven, it is complex to define and apply the concept of quality, both for a generalist perspective and focused on higher education. Similarly, a perspective analysis of the quality of IHE from the perspective of the offer (or internal) and applicant (or external) (Muñoz et al, 2004) can be used.

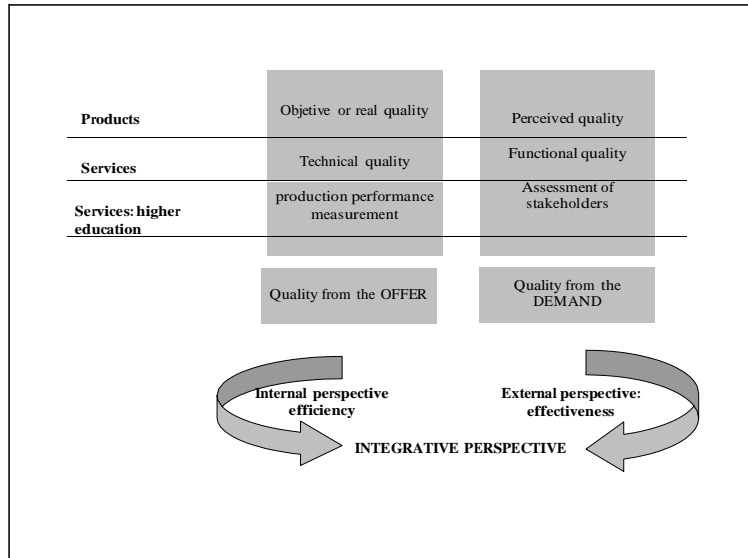
From the point of the view of the supplier, quality assessing would involve the internal effectiveness of the IHE, since it offers a series of services. It would therefore involve determining the use that is made of the resources that the IHE has and the results obtained. To do this, some of the inputs to be considered (volume and quality of human resources, materials and financial resources and the resources used both in teaching, research, etc.). These figures should be compared with the outputs (undergraduate and postgraduate degrees, publications, research and development, transfer, etc.).

The evaluation of quality from the perspective of the demander should take into account the management results of the IHE in terms of social impact. It is therefore, an analysis that exceeds the internal competences of IHE, requiring a study of the results at external level, to see to what extent the results satisfy social needs. A similar approach is proposed in Moreno-Luzon et al. (2001). Thus, an internal perspective is established, which is to determine if the IHE are efficient. For this, it is necessary to study the adequacy of the educational supply when the demand far outweighs the supply. But the quality in IHE should also ensure an external perspective. An example will allow a better approach to these two realities. If you consider the time it takes a student to complete a specific program of studies, an analysis from the internal perspective of efficiency would be carried out. If you take into account to what extent the training received by the graduate conforms to what is demanded in the market, this would be the external perspective.

⁶ The potential impacts of the accreditation process changes include qualifications, institutional policies and improvements in the process of strategic assessment and greater integration between educational demand and supply.

If you want to perform an inclusive analysis of the quality in IHE, the two previous perspectives should be sought, which are complementary. Thus, to achieve quality in IHE, not only is it necessary for IHE to do their work well (internal perspective), but they must also respond to the demands of society (Muñoz et al., 2004). Figure 2.1 summarizes this approach.

Figure 13.1 Approaches to the analysis of quality



Source: Muñoz et al. (2004)

Therefore, although IHE are not business organizations, some relationships between universities and interest groups have an economic aspect. For example, the fact that an IHE improves its research quality can involve higher allocations of funds to universities, because of their increased competitiveness. The same reasoning is valid for the acquisition of resources by means of transfer. This allows the application, with certain adjustments, of the European Foundation for Quality Management (EFQM) model to higher education, as noted, among others in Beket (2008), Boele (2008) or Arjomandi (2009). Precisely with the EFQM model, the different areas of the institution can be evaluated by comparing them with the ideal of excellence, allowing to set plans to improve, in order to achieve total quality (Del Campo et al., 2013). Table 2.1 shows the framework of the classification of quality, on the basis of the main activities of higher education

Table 13.1 Quality framework based on the input-output in higher education analysis

	Input	Process	Output
Education	Management Policy Student selection Teaching facilities	Program curriculum Teaching and learning Assessment Community services	Stakeholders satisfaction Graduates
Research	Staff Laboratory equipment Funding	Staff on the job training	Scientific papers Patents and IP Financial Benefits
Services	Lifelong training	Community services	Social benefits

Source: Arjomandi et al.(2009)

13.5 Applicability of quality systems in the institutions of higher education in Spain

To understand the applicability of quality systems in Spanish IHE, it is essential to know the European reality, as University management is clearly determined by the guidelines of the European Higher Education Area (EHEA).

A set of criteria that determine internal and external quality assurance in the IHE in Europe is designated from Marcellan (2005). For internal analysis, the IHE should: i) have policies and procedures to guarantee the quality and criteria on the degree programmes taught, so that the student has complete information about his/her learning process; ii) have procedures that make it possible for the approval, monitoring and review of the degrees offered, that determine the characteristics for which they were designed; iii) have criteria and public procedures for the evaluation of the students; iv) have mechanisms that ensure the level of qualification and competence of teachers, both in their teaching and research activity; v) have the material and human resources adequate to the demands of the training programme; vi) collect the information necessary for the evaluation process and vii) all the information of the activities of the IHE must be publicized.

This internal approach should be complemented by a series of external quality criteria: i) the use of internal quality assurance procedures that facilitate the external review of the criteria; ii) the development of external quality assurance procedures, which are translated into a commitment of the IHE on the suitability of the services offered; iii) the existence of criteria for decision-making in the process of external evaluation; iv) the design of evaluation processes in accordance with the objectives pursued; v) the establishment of mechanisms and procedures for the publication of reports; vi) the definition of the procedures for monitoring internal and external reports and action plans; vii) cyclical evaluation of processes and viii) general education system analysis. At European level, the European Association for Quality Assurance in Higher Education (ENQA), is the entity responsible for establishing the guidelines on quality material. To do so, the ENQA establishes a series of criteria and guidelines for quality systems (Cardona, 2007). Table 2.2 summarizes this information.

Table 13.2 Criteria and guidelines recommended by the ENQA for quality systems in the IHE

Criteria	Guidelines
<i>Evaluation of the students</i>	
Students should be evaluated based on criteria, regulations and procedures published and applied by IHE.	The assessment procedures must have a design appropriate to the learning process. In addition, they must be adjusted to the purposes set out and with clear qualification criteria known by the students
<i>Learning resources and student support</i>	
The IHE must ensure that their students' learning resources are the most suitable	These resources must be accessible and appropriate to the needs of the students. In addition, they should be reviewed and improved to ensure greater effectiveness of services
<i>Information systems</i>	
The IHE should collect, analyze and manage information for effective management of training programs	The IHE should include information on the progress of students, level of employability of graduates, resources for learning, etc.
<i>Public information</i>	
The IHE must publish up-to-date information on training	The IHE should provide information on its training programmes, academic qualifications, teaching and evaluation procedures
<i>Policies and procedures for quality assurance</i>	
IHE must be committed to the development of the quality policy	The institutional strategy and the responsibility of the management bodies in pursuit of quality should be established
<i>Approval, control and periodic review of programmes and degrees</i>	
The IHE should have mechanisms that allow approval, control and periodical reviews of their programmes and degrees	The IHE must ensure the proper design of the content of the curriculum and study programme, progress control and student success

<i>Quality assurance of teaching staff</i>	
The IHE should have the means to ensure that their teachers are qualified	The IHE should ensure that the teacher is an expert in the subjects taught

Source: Cardona (2007)

For the last two decades in Spain, a strong interest is shown to introduce quality in the education systems. In the non-university system, educational laws that seek to improve the quality of education have been approved: the Organic Law of Quality of Education (LOCE), the Organic Law of Education (LOE) and the Organic Law for the Improvement of Educational Quality (LOMCE). In 2001 the Ministry of Education, Culture and Sport (MECS) prepared, using the EFQM model, an application guide for secondary education centres.

In higher education, the Law 6/2001, of 21 December, Organic Law of Universities (LOU) and the Law 4/2007, of 12 April, Organic Modification of the Organic Law of University (LOM-LOU) also have as their objectives to improve the quality of the IHE⁷. The LOU established an accreditation guide of universities based on the EFQM model of excellence.

Thus, the need for accountability by the IHE is established, being transparent with information and undergoing evaluation, certification and accreditation⁸ of their qualifications, academic, research and management of teacher activities (Barrenetxea et al, 2004). Thus, alongside the debate on autonomy, joint responsibility, government accountability, effectiveness or efficiency of the IHE, there is a growing interest in improving the quality. This concern, has a greater emphasis, due to heavy budget cuts approved by the central and regional government, in higher education. This has forced universities to have to do more with fewer resources.

The legislation that established the organization of University teaching in Spain gives each IHE full competence and autonomy to establish their undergraduate and postgraduate degrees. But, at the same time, there has to be a periodic inspection of the offer in order to ensure the fulfilment of the commitments undertaken. This process of verification and monitoring involves all the IHE, in the fields of teaching, research and management services. The different services offered by the IHE should be monitored periodically by external evaluators and their continuity depends on the result of this process. Therefore, we move from an analysis of self-assessment (internal) to an improvement of quality objectives, based on an external certification process of the IHE.

As a result, IHE have an obligation to coordinate this activity by means of the Internal Quality Assurance System (SGIC) which seeks the overall effectiveness of the activity as a whole, but at the same time, is delegated to management teams, centres, departments, services and users. This activity should be set up as an internal audit system, to then carry out an external audit from the results obtained and the improvement outline given.

Due to the importance of this process and the implications involved when not passing the verification of degrees, this quality evaluation process has motivated a strong interest to ensure good results. Thus, regardless of the form established, in all Spanish IHE there are departments focused on this process. To this, the development of strategic plans for IHE must be added, which is an instrument that enables to detect strengths and weaknesses and strengths and opportunities. In this way, the strategic plan becomes a tool that offers a better service to the entire University community, in teaching, research, transfer, human resources, services and funding.

Throughout this process, Spanish IHE have the collaboration of the National Agency of Quality Evaluation⁹ (ANECA) and autonomous agencies¹⁰. In this way, the evaluation of the services offered must allow for the achievement of effectiveness and efficiency of IHE, the compliance with international

⁷ Both the LOU and the LOM-LOU establish the need for accreditation of centres of higher education, based on the model of the European Foundation for Quality Management (EFQM).

⁸ Quality accreditation is the process that allows to create and promote a quality education, convert the evaluation of institutions of higher education into something common, in order to improve accountability and strengthen the internal and external analysis for strategic decision-making

⁹ The EAHE establish that the supervision of the quality of institutions of higher education must be competition of each national (or regional) agencies. In Europe, the reference is the European Association for Quality Assurance in Higher Education (ENQA).

¹⁰ This is precisely one of the recommendations of the World Conference on higher education in 2009, where it is designated that the public (and private) sector are obliged to ensure a quality higher education, and must create this national accreditation bodies that allow the achievement of this objective.

quality standards for students' training, a fundamental issue to ensure international mobility and meet graduates' needs.

13.6. Conclusions

The pursuit of quality is very present in the management of IHE. The concept of quality as a synonym of doing things properly with public resources is very present in the daily life of IHE.

Assessment processes must be understood as procedures that seek collective improvement of the IHE and not punitive mechanisms. Thanks to these procedures, we achieve to detect those practices that do not respond to the initial objectives and, at the same time, mechanisms are designed to correct them. It is necessary to seek the efficiency and effectiveness of these actions.

Evaluation of the IHE should be something habitual and continuous in time, for which contrasted and transparent methodologies are needed, to ensure the highest quality of the services offered by the IHE. The participation of IHE in curricula and assessment projects, allows these institutions to become aware of their weaknesses and threats and turn them into strengths and opportunities. Only by acting in this way, will internal action plans be designed to improve the levels of university quality and prestige. This will allow not only to improve academic, research and transfer results, but also to increase resources.

To do this, the IHE should be supported throughout the process by evaluation agencies, which are ultimately responsible for ensuring greater efficiency levels of the University System. These agencies carry out continuous evaluation processes, based on international quality standards, which all IHE should aim at. This exercise of responsibility requires the collaboration of all the university collectives, as well as public and private institutions, collaborating with universities. This is the only way to design a dynamic, adaptive and closer to reality university, but at the same time efficient.

Therefore, the IHE must carry out internal and external evaluations, subjected to formal accreditation processes, accountability to society, through standardized and internationally accepted procedures. Only by detecting the problems, can solutions and areas of improvement be established.

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