

**Stakeholder Satisfaction Driven Quality Management in Higher Education**

How the voice of stakeholders can be considered to improve Quality Management Systems of Higher Education Institutions

Gdańsk, 2025

# SUMMARY

# Abstract

# INTRODUCTION [10-15]

## Background on Higher Education Management (JPSZ) [2-3]

In a modern, super quickly evolving economy, knowledge and scientific development play a key role (cf. Castro Laszlo & Laszlo, 2002). Therefore results of the work of higher education institutions (HEI) become a key determinant of the widely perceived success in the modern economy, serving as a driving force for economic development (cf. Puente et al., 2021). In this context, universities play significant role due to their impact on innovations commercialised with technology industries. As it can be observed that “higher education is a reflection of the social, scientific, technical, and economic potential of any country” (Grudowski, 2020), then finding effective solutions for quality management systems of HEI seems to be all the more critical. How challenging it may be is reflected in opinions that “the search for solutions concerning organisation and management (…) is an endless story” (Leja & Pawlak, 2021).

For a better understanding of management challenges for universities, it is important to refer to their historical evolution background. Universities underwent transformations, starting from the 12th century, induced by both external conditions (varying influences of secular and ecclesiastical authorities, technological changes, politics and demographics) and new ideas emerging among the elites or those working at universities. Brief summary of main stages of universities evolution has been presented in the Table 1.

Table 1 Trends in Changes in European Universities from the Middle Ages to the Present

| **Time Period** | **Description of the Main Trends in Changes in European Universities** |
| --- | --- |
| 12th century | Emerging organizations originating from associations of teachers and students forming in cities independently of monastic schools. A key facilitating factor was urbanization. |
| 13th century | The establishment and support of universities by the ruling authorities. |
| 14th century | Increased professionalization and secularization of society, leading to a growing demand for education. Enhanced employment opportunities through education resulted in an increase in the number of students. |
| 15th century | Rulers began to recognize the potential of an educated workforce and provided greater support for the education of an ever-increasing number of students. |
| 16th century | A saturation of the market with graduates led to rising unemployment among educated individuals. There emerged a perceived threat to aristocratic dominance from educated individuals originating from lower social strata. |
| 17th century | The aristocratization of education through the limitation of scholarships for poorer students and an increased emphasis on the socializing role of education. |
| 18th century | A heightened demand for education in new disciplines, fueled by technological advancements and changes in state organization. This period also saw the deconfessionalization of universities and their increased subordination to state authorities. |
| 19th century | The state-supported implementation of the university model as formulated by Kant and realized through the Humboldt model, with research becoming the dominant focus. |
| First quarter of the 20th century | The flourishing of the liberal university model, inspired by non-German concepts of academic freedom in teaching and research, led to the idea of *Lehr- und Lernfreiheit*. |
| Second quarter of the 20th century | The influence of socialist totalitarian regimes led to the subordination of universities to the state, with research increasingly commissioned by the state to support prevailing ideologies. |
| Third quarter of the 20th century | A post-war return to pre-war university ideals, though implemented under the new conditions of rapid technological development and the marketization of education. |
| Fourth quarter of the 20th century | The internationalization of universities, education, and science, supported by state and international regulations. |

Source: (Cwynar, 2005; De Ridder-Symoens, 2020; Kim, 2009; Leja, 2011; Szefler, 2024)

It’s worth noting that the stages of universities’ evolution described briefly in Table 1 show an increasing speed of modifications of concepts for the role of HEI, especially in the 20th century. What is not presented in this simplified form is the fact that a number of these changes were happening in parallel in different regions of the world. The most significant parallel development of universities is between the English-American private universities market and continental European universities, with public universities being impacted by governments. While for private universities, cooperation with business became quite natural and the range of it developed significantly at the same time, public universities in Europe were enhancing more the area of research and teaching that serves society. While these different concepts of what university should be existed together multiple globalisation processes led to the emergence of the concept of triple helix to describe modern economies where universities, businesses and governments cooperate in a mutually reinforcing system. Nevertheless, one of the most important objectives remains preparing the student for future independence. As Geitz and de Geus write “(...) an important goal of higher education is to support students to exercise control over their own learning and to help them develop skills and learn strategies to take the lead. It should aim to educate students in such a way that they become self-regulative learners, resulting in a lifelong, sustainable impact on their personal and professional development” (Geitz & de Geus, 2019, p. 2). This reality coexists with a high recognition of the academic culture which has roots in the medieval universities’ predecessors even from the 12th century. Some the most important manifestations of the academic culture is “ commitment to collegiality coupled with autonomy” and “emphasis on peer review and individual specialization” (Austin, 1990, p. 65). Topic of organisational culture is discussed in more depth in section 3.4.

Given the considerations outlined above, it can be noticed that from a management perspective, HEIs differ from traditional business organisations. They need to consider both business and government relations, but it’s also necessary to cooperate with other universities with which they compete. Overall environment of the university relations seems to be very complex. The most significant parties that HEIs’ managers need to consider are presented in Figure 1.



Figure 1 The University’s Relational Environment

Source: (Leja, 2019, p. 13; Szefler, 2024)

Despite numerous groups that need to be considered, another complexity from a management perspective is the high impact of prestige economy within the academic motivations mix (Blackmore & Kandiko, 2011, p. 400), which leads to a preference for prestige-maximisation over profit-maximisation (Tayar & Jack, 2013, p. 154). Also, universities provide a long-term “production” cycle, as either research or teaching results are not fully predictable, as they have a strong human factor. Because of it, any improvement activities will “require a ‘can-do’ attitude and a creative and flexible approach to defining goals and refining working practices” (Newby, 1999, p. 266).

The authors of this study propose to include a set of stakeholder management tools within quality management systems to support continuous improvement processes in the environment of higher education institutions. The role of stakeholders for HEIs will be discussed in a more detailed way in the following subsection.

## The Role of Stakeholders in Higher Education (JPSZ) [2-3]

In today’s rapidly changing economic and academic environment, the role of stakeholders has become increasingly vital to the governance, performance, and quality assurance of higher education institutions. These institutions are intricately woven into a complex ecosystem of relationships which are related to various obligations and expectations. In some cases, these expectations may become mutually incompatible. From the management of the HEI perspective, understanding at least the main groups that are crucial for shaping the quality of the institution’s services becomes almost mandatory. The importance of that is even stronger because of the specificity of higher education and scientific services, where various groups are shaping the quality, and at the same time, the other various groups are perceiving it and assessing. Moreover, the environment of these complex relations is not static. It evolves, expressing multiple social, economic and technological changes.

The most commonly recognised stakeholder groups of universities are students and overall university employees. They together form a community that can be perceived as a university. As the services of HEI are so much intangible, it could exist without any infrastructure, but cannot without students and teachers who are scientists. This understanding has its roots in the traditional model of the university as a place for sharing and acquiring scientific knowledge. It’s also important to emphasise that nowadays university employees are not only academics but also all administrative and supportive staff, who deliver a crucial contribution to the quality of the institutions’ overall services. Students, after graduation, become alumni, and then they gain the opportunity to verify their skills and competence in real life. This process may lead to a change in their perception of the quality of the university services. Good education and great skills bring value not only to former students but also to the businesses they contribute to. As such, another important stakeholder group are employers. In the scientific environment, any progress comes through creativity, critical inquiry, and peer verification. These processes cannot be fully effective without established cooperation with scientists from other institutions worldwide. From this perspective, other HEIs – even competitors – become stakeholders as potential partners in collaboration. Sometimes it comes in the form of bilateral cooperation or broader networks and consortia involving multiple institutions. Universities possess significant potential to have a great impact on society. That’s why, for most of their history, universities have been of great interest to authorities and policymakers. This attention may be an expression of the overall society’s interests, but sometimes, especially for public universities, it entails regulatory oversight aligned with the priorities of funders.

Within such a complex environment, the traditional quality assurance approach appears to be insufficient. Focusing solely on internal compliance and performance may lead to adhering to perfect internal procedures that are no longer relevant. It may also cause the emergence of a perception of reality which is far from facts. Therefore, applying principles of Total Quality Management appears to be appropriate. These are customer focus, fact-based management, human-oriented management and continuous improvement. These principles will be discussed in more detail in subsection 4.1. With regard to HEIs, it is challenging to determine a consistent definition of the customer, which often leads to issues with the application of the TQM systems and practices (cf. Owlia & Aspinwall, 1997, p. 529; Vijaya Sunder, 2016, p. 162). Although TQM has a proven track record of many successful applications in a wide range of businesses, there is very limited evidence of analogical in HEIs. There are several reasons identified in the literature on the topic, and one of them is the ambiguity surrounding the definition of customer. In the context of universities, it seems to be more natural to adopt the concept of stakeholders instead and apply insights from the stakeholder management theory in order to strengthen quality management processes of HEIs. One of the pioneers of that theoretical foundation is Robert Edward Freeman, who defined in 1984 the *Stakeholder Management Capability* (Zakhem, 2008). According to Freeman “an organization which understands its stakeholder map and the stakes of each group, which has organizational processes to take these groups and their stakes into account routinely as part of the standard operating procedures of the organization and which implements a set of transactions or bargains to balance the interests of these stakeholders to achieve the organization’s purpose, would be said to have high (or superior) stakeholders management capability” (Freeman, 2010). This approach is reflected in the normative quality system, based on the TQM foundations, related to managing educational institutions, which is the ISO 21001:2018 standard. One example is requirement 4.2 *Understanding the needs and expectations of interested* parties, which states that: “the organization shall determine: a) the interested parties that are relevant to the EOMS (Educational Organisation Management System); b) the relevant requirements of these interested parties” (ISO 21001, 2018). Much research shows that organisations which listen and adapt to their stakeholders’ feedback tend to increase their legitimacy, trust and relevance, which positively impact their business results (cf. Freeman et al., 2010; Kennon et al., 2009). This is achieved through the improving quality of the organisation’s services.

Given the above, for higher education institutions, it appears undeniable that continuous improvement of quality cannot occur without a high level of stakeholder management practices. As with modern quality management systems requirements and stakeholder management practices, the key responsibilities are within the leadership of the organisation. These are managers who shape the organisation’s quality culture that might support successful quality improvements for various stakeholders. More on this topic will be discussed in subsection 3.4. However, a good quality culture is the core of a healthy and successful organisation, the inherent part of any improvement is the effective feedback and measurement of improvements. For so complex services such as those offered by universities, measuring quality for their interested groups remains a significant challenge, as it is not easy to determine how well the organisation is satisfying the requirements of its stakeholders.

## Importance of Stakeholders Satisfaction (JPSZ) [2-3]

The concept of measuring satisfaction originates from the well-grounded research on organisational performance. In the field of service quality, customer satisfaction has become one of the primary measures. Many of these indicators are based on customers’ overall perception of how well the organisation serves them. According to research by Iacobucci et al. and Spreng and MacKoy, there is a correlation between service quality and customer satisfaction (cf. Iacobucci et al., 1995, pp. 280–281; Spreng & Mackoy, 1996, pp. 203–204). Furthermore, there are widely used measures like the Customer Satisfaction Index (CSI) and Net Promoter Score (NPS), which assess the overall customer satisfaction. These are applied as high-level indexes that can serve as a general overall trend indicator inspiring more detailed research on the quality level and enabling more consistent improvements design.

Perception of quality has a strong theoretical and practical background in the field of quality sciences. Several of the most recognised service quality models lead to the conclusion that consumers’ perception of quality is the central factor integrating many other detailed quality-related measures. One of the foundations for this idea is found in the work of Parasuraman, Zeithaml and Berry, who created the service quality model (SERVQUAL) which emphasises the meaning of measuring the gap between expected service and perceived service (cf. Parasuraman et al., 1985, p. 44; Stoma, 2012, p. 65). As a result of the popularity of SERVQUAL much research has been conducted and other parameters added in order to better understand different factors’ impact on the service quality and their mutual relations. One example of these enhanced service quality models is the integrated service quality model proposed by Gummesson, presented in the Figure 2.

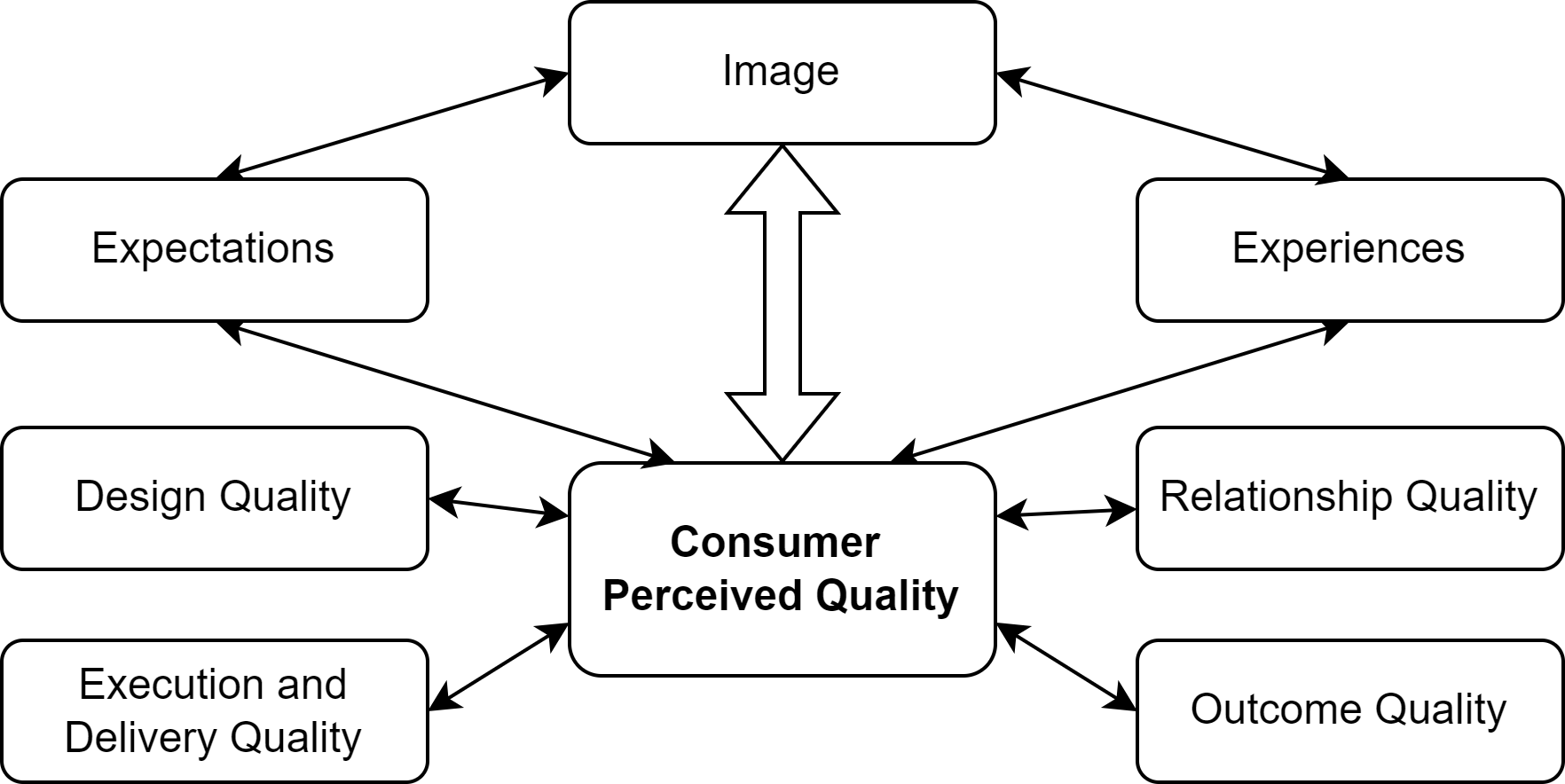


Figure 2 Integrated service quality model 4Q

Source: own compilation based on (Gummesson, 2008; Stoma, 2012, p. 53; Szefler, 2024)

Gummesson’s model of service quality emphasises the role of relationships, which, in a more complex service outcome receivers environment, can be linked to concepts developed in stakeholder management theory. This aspect appears to be especially important considering the conditions of the higher education institutions. The model proposed by Spreng and MacKoy (1996), presented in the Figure 3, adds important elements such as desires and expectations, which are essential when addressing the complexities of measuring HEIs’ stakeholder satisfaction and attempts to understand factors shaping its levels.

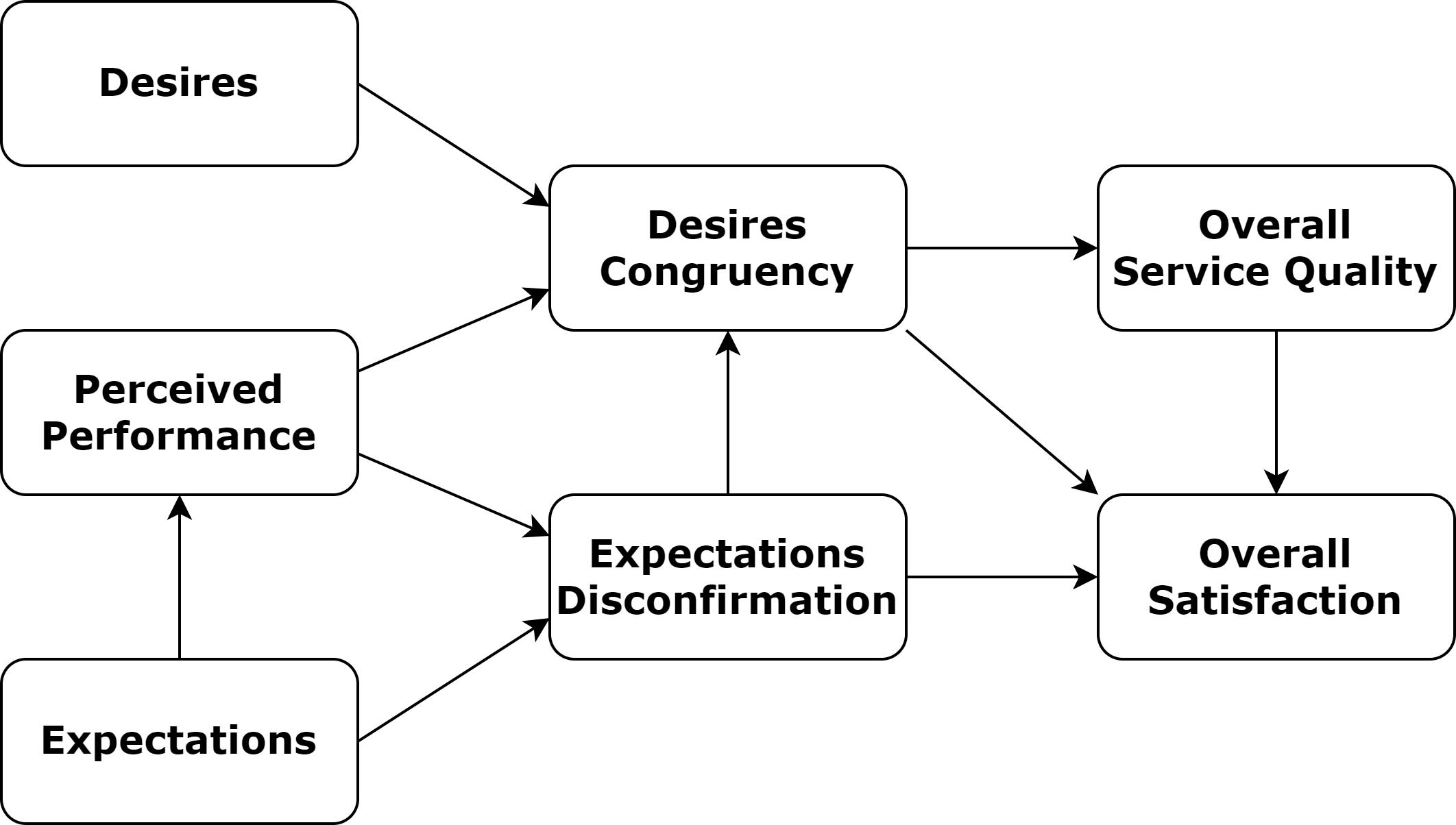


Figure 3 Satisfaction-Service Quality Model

Source: (Spreng & Mackoy, 1996, p. 203)

Similarly to customer satisfaction, comparable concepts can be applied to stakeholders’ satisfaction measures, allowing for the inclusion of voices from a much broader range of interested groups beyond just clients (users / consumers) of the organisation’s products. While this type of research might be more complex and challenging, the idea stems from the same roots and aims to develop an index that captures the overall impact of various factors shaping the organisation’s stakeholders’ satisfaction as the key aggregated indicator of the organisation’s performance. Another key reason why stakeholder satisfaction is especially relevant for universities is its impact on the perceived reputation (cf. Mendoza-Villafaina & López-Mosquera, 2024; Qazi et al., 2022). In the context of the HEI market, institutional reputation is a very important measure of both academic standing and scientific impact. This likely explains why the mechanisms of the prestige economy rules (see subsection 1.1) exert such an influence on the institutional behaviour. This reinforces the role of stakeholder satisfaction as a natural and essential performance measure for universities. As an aggregated high-level indicator, it needs to be used as a foundation for further research and organisational learning on the important factors driving the long-term stakeholder satisfaction. It is worth emphasising the importance of adopting a long-term perspective. Since HEIs “products” are the result of long-term processes, the only appropriate perspective for management and improvements efforts assessment is the long-term. This adds an additional layer of complexity and challenges to quality management, making the art of managing HEIs even more demanding.

## Overview of Quality Management in Higher Education (PGR)

## Objectives and Structure of the Monograph (PGR)

# Understanding Stakeholder Satisfaction in Higher Education [25-30]

## Definition of Stakeholders in Higher Education (JPSZ) [7-8]

## Key Stakeholder Groups for HEI (JPSZ) [7-8]

## Expectations and Needs of Stakeholder Groups (JPSZ) [6-7]

## Methods for Measuring Stakeholder Satisfaction (JPSZ) [6-7]

# Foundations of Quality Management [40-60]

## The Concept of Quality (PG)

Similarly to the entire public sector, the higher education system and institutions are expected to change and apply generally accepted principles and solutions that ensure progress in terms of effectiveness, efficiency, and a significant contribution to the state's development (Massy, 2003).

In the context of pro-quality transformation, universities' social rank may be their weakness and a source of inspiration for new solutions.

However, the main point is that these changes are made to uphold fundamental, traditional, and current values related to higher education, as one of the most critical resources in every country.

Attention to quality is quite natural in higher education. Quality has been the subject of interest for universities since their existence. However, in the second half of the 1980s, an assessment was made on the activities of higher education institutions (HEIs) that acquired public importance in relations with central and local authorities and society (Neave, 1988).

Many aspects have contributed to the growing interest in quality in universities. The most important of these was the adoption by most governments of policies that universalised higher education in place of the old system's elite. This phenomenon created a new situation, significantly changing the nature of the impact on individual institutions, academic staff, and students. These factors include the growing role of the private sector, replacing the public sector as the key employer of university graduates. In these conditions, universities had to start responding to the needs of a more heterogeneous private labour market. Traditionally, higher education institutions' centralised and bureaucratic management systems began to reveal their numerous weaknesses more clearly than before (Weisbrod et al., 2008). The dilemmas surrounding the relationship between productivity and quality raised in many higher education debates have become increasingly complex as expectations about universities come from different, often previously unnoticed, stakeholder groups. Furthermore, the level of trust in the relationship between higher education institutions, the state, and society plays a vital role in determining the characteristics of quality assessment systems.

This complexity has resulted in numerous definitions of quality related to university activities, from quality associated with academic excellence to quality understood as the ratio of "academic efficiency" to operating costs. I. Gvaramadze (2008) states that quality in higher education is a continuous process (sic!) related to values, internal processes, and efficiency. This author claims that quality in universities should be manifested in two contexts: transformation (the process of changing an individual) and improvement (the process of transforming an institution). At the same time, in the same study, the author notes that quality can be a set of values and practices common to the institutional community at various levels (institutional, faculty, subject, or programme). Therefore, it is challenging to consider this type of approach as a contribution to organising the issues discussed.

The difficulties in defining the quality category have led various authors to propose a more pragmatic approach to its understanding in higher education. Among others, these dilemmas were confirmed by a provocatively titled article by C. Ball (1985).

The authors of this monograph believe, similarly to D. Westerheijden et al. that the interpretation of the concept of quality depends on and belongs to the higher education stakeholders. For example, for representatives of central and local authorities, quality is understood in terms such as graduation rates or employability of graduates; for future employers, quality may be related to the competencies of graduates that are important for the organisations they represent. Quality becomes a multidimensional concept based on different views regarding universities and the quality of services they represent (Westerheijden et al., 2007). The multidimensionality of quality in higher education also results from various aspects related to implementing the contemporary mission of higher education.

In addition to the often-emphasised multidimensionality of the quality category in the context of the characteristic features of universities, another critical issue is the dynamics of quality perception, especially about educational services and hopes associated with progress in scientific research. The fundamental principle of total quality management (TQM), continuous improvement, should be considered for a wide range of new challenges in education, the economy, politics, and social phenomena (Ewell, 2010).

Based on a study of the world literature, L. Schindler and his coauthors indicated that considerations regarding the definition of quality in higher education focused on four main trends (Schindler et al., 2015):

1. purposeful linking the concept of quality with the mission of the university, mainly concerning compliance with the standards defined by relevant regulations and institutions enforcing them,
2. distinguishing - quality is associated with the uniqueness of the offer and value image of a given university,
3. transformational - emphasising the importance and effectiveness of university services in the context of influencing the development of students' potential and competencies,
4. responsibility and accountability - to identify and meet the needs, expectations, and requirements of the university's interested parties while ensuring optimal use of resources.

The latter trend is currently accepted in a social context. It is also consistent with the development trends in the public sector.

Although researchers around the world often take on the issue of defining quality in higher education, paradoxically, there needs to be a universal, formally adopted, and most importantly, universally accepted definition in this sector. For example, in the essential document for the EU's pro-quality policy concerning higher education systems, "Standards and Guidelines for Quality Assurance in European Higher Education" (ESG), the only (!) reference to the concept of quality should be considered the sentence: "Quality, although it is not easy to be defined, is mainly the result of the interaction between teachers, students, and the institutional learning environment" (Standards and Guidelines, 2015).

The lack of a clear definition of this fundamental concept in such an important document is a severe shortcoming, clearly noticeable in the case of documents concerning higher education reforms adopted by EU bodies and individual countries. Therefore, it is difficult to conclude that the recommendations presented in the ESG are consistent, even terminologically, not only with the basics of quality management, but also with the basic logic of the mentioned reforms. It is not only about the problem of freedom of interpretation of what quality is in universities, but mainly about the possibility of using a specific semantic convention that facilitates the understanding of many concepts, phenomena, and their effects related to this quality. For example, how can we understand the essence of quality assurance in universities as presented in ESG without defining quality?

Taking into account the various factors pertaining to the definition of quality, along with the distinctive characteristics of services within the public sector, the authors have articulated a definition of quality that is suitable for the context of university activities:

**Quality is defined as the extent to which the needs and expectations of stakeholders are met in relation to the relevant university processes and their results, including the use of resources within these processes, while taking into account both internal and external conditions.**

This definition of quality emphasises the following:

1. The relationship between quality and the level of meeting the needs and requirements of stakeholders, which may be formal (law regulations) and informal (individual expectations);
2. That when referring to quality in a university, in addition to the processes of providing educational services, research and activities related to relations with the external environment should be considered, as well as various types of auxiliary processes (e.g., administration, technical support, finance) and management (assigned to university management and bodies);
3. The critical role of university resources, especially the capital of competencies and attitudes of all groups of employees, including knowledge potential, both in the open and hidden dimensions;
4. The need to pay special attention to the impact of changing conditions of various natures on the functioning of universities; this is particularly important in the case of universities due to the high susceptibility of their management systems to the possibility of destabilisation and its adverse social effects.

The definition also opens up appropriate variants, depending on the group of university stakeholders (e.g., university employees), the categories of processes considered (e.g., education) and resources (e.g., knowledge capital), and the type of conditions considered (e.g., economic policy of local authorities). For example, considering the perception of quality by students, J. Gallifa and P. Batalle proposed the following definitions of the quality dimensions that constitute the SERVQUAL model (Gallifa&Batalle, 2010):

1. **tangible aspects** *-* attractive location of the university, cleanliness, aesthetics and spaciousness of the rooms, reliability, safety of laboratory equipment, neatness of staff,
2. **reliability** *-* completeness, timeliness of classes, availability of lesson plans, schedules, teaching materials, size of student groups conducive to the quality of education, library services, housing services, the structure of the curriculum consistent with substantive and methodological standards, an appropriate number of subjects to choose from,
3. **efficient response, flexibility** *-* speed and correctness of reaction to the changing needs and expectations of students,
4. **assurance** *-* professionalism, teaching abilities, practical experience of academic teachers, fairness of the assessment system, professionalism of administrative staff,
5. **empathy -** understanding and kindness of employees toward students, applying an individualised approach to students, readiness to respond positively to social expectations (volunteering), creating opportunities for students to participate in various additional activities (e.g., science clubs, sports activities, internships in enterprises).

Concerning the identification of gaps that enable the determination of the level of service quality in the SERVQUAL method, Hrnciar and Madzik schematically presented the educational process at the university, proposing a model based on seven gaps, adding two additional gaps concerning the original SERVQUAL model. Two further areas concerning the "classic" model (gaps 6 and 7) make it possible to fully relate the model to the PDCA cycle because the subject of the analysis is also measuring and improving the quality of education. In the presented system of seven gaps, university management indirectly and directly influences improvement activities in all areas (gaps) of quality definition. The authors mentioned define these gaps as follows (Hrnciar&Madzík, 2013):

1. **gap 1** concerns the summary of expectations of key stakeholders (students, employers) and the perception of educational requirements by university management,
   1. **gap 2** is the result of a comparison of management's perception of the requirements regarding the educational process and the effects of their translation into specified study programmes and the educational process,
   2. **gap 3** concerns the comparison of study programme specifications and the reality of the educational process carried out,
   3. **gap 4** is determined based on the assessment of communication with students before, during and after completion of education concerning the planned and implemented programme,
   4. **gap 5** concerns the comparison of the actual educational process and its results perceived by students/employers,
   5. **gap 6** is determined based on a comparison of the perception of education by key stakeholders and the university's internal measurements of educational outcomes; is the answer to the question of whether these internal measurement results are correctly interpreted,
   6. **gap 7** determines whether the results of crucial stakeholder satisfaction measurements translate into practical improvement activities aimed at the quality of education.

As N. Senthilkumar and A. Arulraj note, there are unresolved methodological problems regarding the use of the SERVQUAL scale in higher education institutions (Senthilkumar&Arulraj, 2011):

* 1. many dimensions of quality that have been identified in connection with university activities since they result from the description of individual cases are challenging to consider universal, e.g. in comparative research,
  2. similarly, in many research cases devoted to the education sector described in the literature, the indicated quality dimensions were not verified appropriately, consistent with the necessary methodological rigour (validity and reliability),
  3. the described research is not based on a sufficiently broad perception of the effects of actions expressed by representatives of various stakeholder groups,
  4. many studies lack the necessary size information about samples and methods used to analyse given techniques,
  5. many studies did not include steps related to determining the importance of individual quality dimensions, undermining their results.

Therefore, according to these authors, it is advisable to use the SERVQUAL method mainly as a framework. This skeleton can be modified and used in various contexts, not only sectoral, but also with respect to specific entities (Senthilkumar&Arulraj, 2011).

The following issues should be considered before conducting empirical research to avoid the indicated problems (Gupta&Kaushik, 2018):

1. within the classical dimensions of service quality adopted in the SERVQUAL method, standard parameters should be identified that are, regardless of the areas of knowledge represented, accepted in higher education; thanks to the fact that none of such vital parameters will be omitted, a multidimensional comparative analysis of research results will be possible;
2. to accurately determine the desired directions of changes related to the dimensions of the quality of activities at universities, it is necessary to decide on those parameters that, in particular, correspond to the specificity of entities and research objectives; for example, research on the quality of education in fields related to the social sciences indicates the social image and the structure of the course curriculum as essential elements of assessment, while concerning the field of medical sciences, no significant importance is assigned to these parameters,
3. the assessment scale used, both newly developed and modified, should cover each parameter within the appropriate quality dimension, and this scale should be verified in terms of validity and reliability of measurement;
4. methodological problems in this type of research are caused by respondents' reluctance to provide feedback. Therefore, the primary obligation of researchers is to inform and convince respondents about the need for and authenticity of the study so that relevant and realistic data can be collected, which will allow the formulation of accurate generalisations regarding the results obtained.

An organisation can maintain and improve quality only when activities are based on systematically integrated learning. P. Senge proposed a model of strategic building of learning organisations, which is the basis for solving problems by adapting organisational learning. As with the holistic quality model, its implementation can lead to "generative learning", which increases the ability of an institution or individual to create new solutions to the increasingly complex problems that universities face (Senge et al., 1994).

Examples of solutions to create the basis for an integrated assessment of higher education institutions are models developed by researchers representing various higher education systems throughout the world. Proposals for such solutions were presented by, among others, M. Owlia and E. Aspinwall (1996), M. Lalovic (2002), S. Lagrosen and co-authors (Lagrosen et al., 2004), or M. Tsinidou and co-authors (Tsinidou et al., 2010).

An example of one of them, the HEQAM model (Higher Education Quality Assessment Model), a multielement construct verified using appropriate scientific methods and proposed by A. Noaman and coauthors, is presented in Table x.1

**Table x.1.** Higher Education Institutions Quality Assessment Model (HEQAM).

| **Category** | **Factors in a Category** |
| --- | --- |
| **A. Study Programs** | A 1. A variety of elective modules /modules in areas of expertise  A 2. The programme is planned in detail, e.g. every week  A 3. The curriculum contains prerequisites for individual courses  A 4. Programs improve students' knowledge, skills and competencies A 5. Programmes respond to the needs of the labour market  A 6. Programmes cover scientific topics |
| **B. Employees** | 1. Academic qualifications 2. Work experience 3. Research activities 4. Willingness to collaborate and organisational commitment 5. Relevant Academic Advising   Communication skills |
| **C. Student opportunities for personal development and career** | C1 Career prospects  C2 Institution-business links  C3 Technical skills  C4 Communication skills  C5 Language skills  C6 Employability in curricular programmes  C7 Opportunities to continue studies abroad  C8 Availability of exchange programmes with other universities  C9 Postgraduate study opportunities |
| **D. Infrastructure** | D1 Modern, high-quality laboratories  D2 Catering services  D3 Sports facilities  D4 Medical Facilities  D5 High-quality university administration buildings  D6 Availability of services for the organisation of social and cultural events  D7 Availability of dormitories |
| **E. Service** | E1 The university's website provides academic and administrative services  E2 Efficient, accurate and fast services  E3 Rapid technical support  E4 Availability of e-services from different locations  E5 E-service via social networks |
| **F. Library services** | F1 Availability of textbooks and magazines  F2 Easy borrowing process  F3 Availability of library services by electronic means  F4 Library of electronic sources  F5 Sufficient space for reading and sitting  F6 Operating hours  F7 Librarian collaboration |
| **G. Administrative services** | G1 Efficient and fast delivery of services  G2 Sufficient working hours  G3 Availability of administrative services on the University website  G4 Availability of technical support for e-services  G5 Friendliness of administrative staff  G6 Availability of service materials  G7 Clear guidance and support |
| **H. Location** | H1 Presence of security personnel  H2 Accessibility of facilities for the disabled  H3 Availability of transportation services (off-campus)  H4 Transportation Cost  H5 Transport services between university buildings  H6 Availability of parking spaces |

Sources: own study based on (Noaman et al., 2017).

Although complex and multifaceted, assessing various aspects of quality in higher education institutions is justified and will be needed as long as multiple entities are interested in these results. The duties of university management staff, rectors, deans, and directors, make it necessary to reconcile the interests of various parties related to the organisations they manage. Therefore, the coexistence of different, but at the same time fully justified, interpretations of the concept of quality at the university is natural (Olaskoaga-Larrauri et al., 2016).

An essential condition for properly using the information obtained by applying the mentioned evaluation models and indicators is awareness and understanding of the interactions between various activities of a given institution. The essential condition is that the collected information is used for practical improvement actions (Sarrico et al., 2010).

Concerning the above comments on the concept of excellence and improvement, the essence of these issues in higher education institutions will be presented later in this chapter.

## Category of Excellence (PG)

As follows from the information presented in this chapter and the views of most authors dealing with the issues under consideration, the concepts of quality and perfection are closely related (Peters & Waterman, 2012). This results from recognising perfection as the symbolic goal of quality activities and improvement as the basis, the critical principle of pro-quality management.

Universities constitute a group of entities in which this relationship is evident because the pursuit of excellence is an element of the academic ethos. At the same time, the diversity of relationships and expectations associated with the many entities involved makes the context of excellence in higher education far more complex than in other service organisations.

Perfection has two faces. On the one hand, it refers to a specific entity concerning their capabilities, including a person or an organisation. On the other hand, perfection is always related to the potential of other appropriate entities in the context of its consideration. Because definitions of excellence are located in changing social, economic, and political contexts, its meaning changes depending on the global environment. This trend is reflected, among others, in:

* the diffusion of standards and practices from the corporate sector,
* the efforts of state authorities to increase the rate of return on budget expenditure on higher education,
* the transition from elite to egalitarian higher education systems or the growing importance of various academic rankings (Rostan&Vaira, 2011).

Global university rankings, intended to confirm the reputation of individual institutions and the strength of national higher education systems, emphasise the concept of academic excellence, with the research sphere dominating. Institutions classified as the organisers of these rankings intend the best to define the horizon of academic excellence and are usually referred to as elite institutions. Nevertheless, is this the right approach?

In the vast majority of cases, national policies tend to award the title of excellent to those academic institutions that are already strong and have a natural advantage in playing the "excellence game".

S. Marginson claims (2011) that rankings shape the status of institutions, allowing the stronger to become even more robust and dooming the weak to further weakening. Universities are encouraged both to strive to become excellent centres of knowledge "production" (traditional research function) and to provide access to such knowledge to increasingly diverse groups of recipients - students (teaching, educational functions) (Bleikie, 2011).

According to K. Strike, perfection should be a concept reflected in the activities of every university, not only selected elite units. Such a concept of excellence, linked to appropriate criteria, would be perceived as more equitable and valuable in terms of benefits for higher education systems. The definition of these criteria should be related to individual universities' goals and values. Therefore, instead of perceiving excellence as a clear-cut category, it should be conceptualised as a multi-variant concept, depending on the type of institutions, their different contexts, and their missions (Strike, 1985).

The criteria approach to the concept of excellence is expressed in a set of universally recognised and appropriate standards for all organisations considered.

The study "The Concept of Excellence in Higher Education", signed by the ENQA organisation, dealing with quality issues in the European Higher Education Area (EHEA), indicates eight elements that should become determinants of the pursuit of excellenceand tangentially demonstrated level of maturity regarding the results of these endeavours[[1]](#footnote-2):

1. **Progressive strategic management with a solid methodological basis.** The mission and goals that determine strategy influence planning and resource acquisition decisions, as well as the ethos and style of practice of a given institution. Both governing bodies and management teams support achieving university goals that promote excellence. One of the features of such an institution is the awareness of one's strengths and weaknesses and the desire to improve. Outstanding institutions demonstrate determination to pursue the highest standards of achievement.
2. **Commitment to academic research and development.** An excellent institution is expected to demonstrate evidence of a well-known, active academic community with academic staff, researchers and students. The quantity and quality of research outputs would be a critical measure of research activity. Still, it is also essential to consider how academic staff engage with their academic discipline through individual study and participation in the broader thematic community. Employees are expected to be competent and engaged in broader academic debate.
3. **High level of academic achievement.** A fundamental measure of an institution's reputation and success is the educational achievements of students and staff in the field of study and research.
4. **Excellent educational process results from the perspective of the expectations of students and graduates.** The excellence of a university is expressed through a high level of satisfaction among students and graduates regarding the provision of the expected quality of teaching, learning, and support, as well as the expected employment and various opportunities for professional development or further education.
5. **High level of satisfaction of various groups of external stakeholders.** The concept of excellence is related to the values perceived by external stakeholders that they obtain from the appropriate results of the university's activities. Examples of such stakeholders include employers, central and local authorities, and organisations benefiting from research results and knowledge transfer.
6. **Support for social, economic and cultural development.** Higher education institutions are recognised as a "social good" that supports society's intellectual, artistic, and technical development and promotes equality, inclusion, and active citizenship.
7. **Commitment to internationalisation.** Academic institutions should strongly emphasise a global perspective as part of their mission and strategy, recognising the importance of competing worldwide and developing an international knowledge economy. Universities should compare their results with equivalent institutions in other countries and participate in international cooperation in academic research and development.
8. **Promoting equality and academic freedom.** A fundamental feature of higher education is its commitment to the value of objective research and knowledge acquisition without political or other forms of intervention. Educational institutions should guarantee equal opportunities for individual expression.

The listed features of an institution adopting a strategy of striving for academic excellence, suggested by experts representing ENQA, only exhaust some aspects of organisational excellence. One of the most noticeable gaps is the need for more reference to the leading principle constituting a condition for improvement, indicated in the context of the concept of Kaizen - respect for people.

In the case of several of the features mentioned above, there is an indirect reference to this condition concerning students or people involved in education and research; this needs to be indicated.

Therefore, it is necessary to supplement the features that characterise excellent universities with practices that reflect respect for people, such as:

* 1. The use of regular evaluations of management's performance by all groups of conditions,
  2. An open and widely accepted employee evaluation process based on the premise of positive things,
  3. Appreciating administrative employees and technical services' contributions to improvement activities, extensive consultation on plans for introduced changes, etc.

However, the characteristics of excellence in academic institutions do not create a coherent model supported by reliable verification based on scientific methods. Therefore, it is also more appropriate for universities to use recognised organisational excellence models (see the comments in the previous section). Of course, the models of excellence described in this monograph should be mentioned, e.g. the American MBNQA (Malcolm Baldrige National Quality Award) model, the EFQM (European Foundation for Quality Management) model, dedicated to the CAF public sector (Grudowski, 2015b; Rosa&Amaral, 2007) or self-assessment according to the ISO 9004:2018 standard. As in the case of university evaluation scales, it is worth considering appropriate modifications to the detailed characteristics of these models to make them easier to understand and use in practice in higher education institutions.

An example of this type of modification is the concept presented in B. Ruben's book (2007) on excellence in American higher education.

This concept focuses on the elements necessary to establish and maintain the status of an excellent university, its organisational units, or its educational programs. The framework of this concept is based on the integration of assessment, planning and improvement approaches. In current practice, the proposed improvement mechanisms are audits of areas (processes) of the management system, management reviews of research and teaching disciplines and strategic planning concerning all functions and levels of management. According to B. Ruben, the level of organisational excellence of a university should result from activities and their effects in the following areas:

1. leadership,
2. goals and plans,
3. beneficiaries and stakeholders,
4. programs and services,
5. department/staff and place of work,
6. evaluation and use of information,
7. results and achievements.

Areas 1–5 are the basic building blocks of the capacity of an academic institution. Area 6 focuses on the methods and procedures used to assess and analyse quality and effectiveness in areas 1–5. Assessment area 7 considers the results and achievements documented in the assessment process.

The prevailing opinion on the European-rooted excellence model developed by EFQM experts is that it can be successfully applied to higher education institutions as a practical, comprehensive approach enabling systematic process improvement. At the same time, the best way to use this model is its adaptation, dedicated to a given organisational culture, and not the use of the basic version, which is not easy when it comes to direct interpretation in the academic environment (Dahlgaard-Park, 2008).

An important issue regarding the methodological correctness of scientific research conducted using the EFQM model is its internal consistency as a complex construct representing the modern quality management paradigm. Thanks to research conducted, among others, by A. Calvo-Mora and co-authors (Calvo-Mora et al., 2006) and R. Ismail and co-authors (Ismail et al., 2015), the validity and reliability of this model were confirmed, which is a condition for its use in research on management systemsbased on TQM principles in universities.

Based on a literature review, R. Laurett and L. Mendes (2019) found that the results of international research on the EFQM model in higher education reveal the following critical factors determining the effective and efficient application of the model:

1. Strong internal motivation and commitment of university top management;
2. Genuine commitment and cooperation of people representing every group of university employees,
3. Training and development of staff appropriate to the functions performed;
4. Appropriate use of communication and information exchange systems (ICT);
5. Systematic processes of monitoring, evaluation and measurement (efficient corrective actions) and external supporting environment.

The authors, as mentioned earlier, also indicated typical barriers encountered in universities representing various higher education systems in terms of introducing solutions based on organisational excellence, based on the TQM concept, including the EFQM model that reflects it (Laurett&Mendes, 2019):

* 1. Lack of commitment and enthusiasm of management and employees, often resulting from the time-consuming nature of the change process and the lack of quickly noticeable, positive results;
  2. Lack of resources (time, human and financial resources), including competencies necessary to support process improvement; the lack of resources dedicated to improvement activities may result in the need for employees to perform additional tasks without the expected, appropriate gratification;
  3. Lack of previous experience and practical skills in the field introducing pro-quality solutions;
  4. High complexity of university processes and related problems in communication within the organisation.

A shortcoming of research on quality and excellence in higher education is that most of its subjects are the university's internal stakeholders, i.e., students and academic teachers. To fill the gap related to focused research, other university stakeholder groups should contribute to enriching knowledge in this area. This participation is important in an in-depth assessment of individual universities and higher education systems' broad perception.

Another area for improvement, in the context of the effectiveness of process improvement strategies, especially in more prominent universities, is the impact of appropriately designed and functioning IT systems. It is challenging to imagine that management systems would function effectively in organisations as complex as universities without the support of integrated IT solutions. They are necessary to collect and process data, monitor complex processes and projects, and make facts-based decisions.

For natural reasons, the issue of excellence in higher education is related to the sphere of education (teaching) and scientific research.

Excellence in teaching is determined by factors such as charisma, inspiring attitudes and personalities of individual lecturers, organisation of presentations, ongoing interaction with students as participants, and the extent to which the information provided allows for achieving educational goals, including appropriate strategic assumptions. University. Academic excellence can be linked to both student satisfaction and student outcomes. Another manifestation of excellence in teaching is the high level of student involvement in acquiring knowledge.

L. Elton presented teaching excellence as a five-element construct, in which each component is a feature necessary for the definition and functioning of the whole (Elton, 1998):

1. Teaching excellence at a university is a multidimensional concept, and its dimensions require individualised forms of recognition and highlighting related activities;
2. If the level of teaching quality is to be constantly improved, teaching excellence must become a priority goal at the university and its organisational units;
3. The criteria creating an individual pattern of teaching excellence (quality) can be established in the same way as the criteria of research excellence; however, they are much more complex when it comes to interpretation and should not be used by people or teams without appropriate substantive preparation and practical experience in the field of pro-quality management.
4. A necessary condition for the effective pursuit of teaching excellence at the individual level is the didactic professionalism of an academic teacher;
5. Excellence in teaching represented by individual academic teachers is a necessary but insufficient condition for an excellent educational process; excellence should also be an integral part of the university's organisational culture, including its organisational units; however, this culture can be developed based on the excellence of individuals - leaders.

As noted by G. Gordon and co-authors (Gordon et al., 2003), the view is often expressed that the so-called Teaching excellence, representing the appropriately defined and independently verified characteristics of an academic teacher, should be an obligation for all teaching staff. However, they state that while an appropriate level of teaching competencies should be expected from all academic teachers, the previously mentioned status should distinguish teachers who are models of teaching excellence for others.

One of the characteristic solutions in developing the research excellence concept, which impacts many higher education systems, is the Research Excellence Framework (REF) evaluation system adopted in Great Britain. The idea of excellence has been applied to assessing the quality and value of research in higher education institutions. As in other higher education systems, excellence in research activity is evaluated using quantitative measures, mainly bibliometric indicators, involvement in the implementation of research projects and income from research. The REF aims to rank and compare the performance of higher education institutions against international standards to highlight accountability for public investment in research and provide evidence of the benefits of these investments.

The methodology adopted in the REF system is based on a set of evaluation criteria and the following levels classifying the degree of excellence (quality) of research activities:

1. World-leading level in terms of originality, relevance and reliability research,
2. Internationally outstanding in terms of originality, relevance and reliability but not meeting the highest standards of excellence,
3. A level recognised worldwide for originality, relevance and methodological rigour,
4. Nationally recognised level in terms of originality, importance and reliability research,
5. Low-quality, nationally recognised work that does not meet the assessment requirements.

The primary result of the assessment is the overall quality profile assigned to each applicant institution and, consequently, the appropriate allocation of research funds. Research Funding Councils are committed to allocating funds based on the level of research excellence achieved and to funding excellent research in all its forms, wherever it is located. The consequence of this policy is the concentration of research activities in those institutions that can demonstrate that the research results obtained correspond to a level recognised worldwide.

It is worth emphasising here the importance of conditions related to the factor that has a critical impact on improving university activities, including the efficiency of scientific research - human capital management.

As part of the "Human Resources Strategy for Researchers" (HRS4R) initiative promoted by the European Commission in 2005, the main goal was to increase the attractiveness of mobility, working conditions, and the careers of scientists in Europe.

The university receiving a distinction in connection with this initiative should undertake systemic activities aimed at the quality of staff, including employee satisfaction with the working conditions offered to them. Such a distinction, by definition, refers directly to the idea of excellence because it is called "HR Excellence in Research". Institutions seeking to obtain this distinction should treat participation in the HRS4R initiative as a continuous process that involves regular assessment of progress in implementing and complying with the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, performed by experts.

[<https://cdn5.euraxess.org/sites/default/files/domains/pl/karta_i_kodeks_broszura_pl.pdf>],

However, the level of interest in similar projects should not constitute the basis for formulating far-reaching conclusions regarding the maturity of individual higher education systems. This phenomenon should become an element of a broader debate on the social value and credibility of various initiatives, such as accreditation in higher education or certification of management systems. Most importantly, obtaining awards, distinctions, certificates, or accreditations should not constitute an aim for managing higher education entities. This substitute masks the need to undertake practical improvement activities at universities.

B. Readings, representing the critical trend referring to contemporary management concepts in higher education, in his provocative but also inspiring book "The University in Ruins," used the term "University of Excellence" (Readings, 1996). This author stated that the modern university had become a "bureaucratised corporation" and that the current university crisis in Western countries is caused by a fundamental change in its social role. The result of the current situation, according to Readings, is the promotion of the "University of Excellence" model. However, as a concept derived from business strategies, excellence exposes university traditions to the ruthless forces of market capitalism, and the main criterion of excellence becomes educational and scientific productivity associated with the pressure for efficiency in the factory.

In promoting organisational excellence, it is unacceptable to marginalise traditional academic values and replace them with rigid productivity indicators. According to the author, the critical point is the postulate by K. Strike (1985) to treat excellence as a multi-variant concept, depending on the organisational culture of the academic institution and its specific contexts.

Improvement activities should be identified, planned and supported at the university's central level, in its organisational units (faculties, institutes, departments) and to individual employees. In the latter case, there should be no exceptions when it comes to groups of employees, and the basis is, of course, the genuine activity of the management staff.

Considering the above deliberations, including the opinions of many researchers, the author believes that, in practice, the excellence category is intended to serve a motivating function. It cannot be assigned only to those areas of university activities that are distinguished by certificates or accreditations.

Setting expectations for excellence or improvement would ensure that the focus is on developing an improvement strategy that responds to contemporary achievements and challenges.

## The Quality Assurance Approach (PG)

The concept and role of quality assurance

Systems of national, regional, local and intra-institutional regulations, called quality assurance - QA, constitute the basis for processes declared as quality systems in higher education worldwide. They are established in universities operating on market principles in the United States, within autonomous systems of public institutions in Great Britain, systems supervised by relevant ministries in many EU countries, and in strictly controlled conditions. by the state, such as in China. The attractiveness of this approach, from the point of view of individual governments, is that quality assurance systems establish various forms of supervision over higher education, which is well in line with the demand for accountability of universities.

These systems can be used to encourage actions consistent with the policies of state and local authorities and even indirectly influence the appropriately directed development of the private sector (Jarvis, 2014).

The emergence of QA regulations can, therefore, be seen as the result of changes in public opinion about the social role of the university or graduate education strategy and, at the same time, a set of political instruments developed to allocate institutional resources to activities consistent with the interests of the state. Marketisation or the application of economic rationalism in program offerings, research financing, and employment practices increasingly reflect the role of quasi-market mechanisms, causing some elements of academic activity to be promoted and others marginalised. Management through regulations within national quality assurance systems is a logical consequence of the triumph of the state subordinating the university to instrumental market forces and economic interests (Jarvis, 2014).

It is difficult to find a clear answer to why the concept currently most commonly used in the context of the system of activities for quality in higher education is "quality assurance". According to the presently applicable semantic convention, quality management covers a much more comprehensive range of important factors influencing quality than quality assurance. This results directly from the "quality assurance" definition presented in the ISO 9000:2015 standard[[2]](#footnote-3). "Quality assurance" is a concept introduced to the field of higher education from the world of business, mainly from the production sector, as well as, among others, the terms "quality inspection", "quality control", "continuous improvement" or the above-mentioned "excellence".

The direct reference in this case is the quality assurance system, created over 40 years ago as a mechanism for building trust in manufacturer-supplier relationships (Crozier et al., 2006).

The emphasis on "quality assurance" as a critical concept regarding quality in higher education, currently associated instead with one of the earlier stages of the evolution of approaches to quality, is characteristic, as previously mentioned, not only in the European Higher Education Area. Also, in the United States, QA is commonly associated with the system of quality activities in universities (Ryan, 2015).

This situation, although for pragmatic reasons should not constitute a significant barrier to practical activities in the area under consideration, is not favourable in terms of coherence and uniformity of reference to the undisputed achievements of management based on the quality criterion, in particular concepts and models referring to the principles of TQM. Not only researchers of this issue but also practitioners treat quality assurance as only a fragment of a comprehensive management system, including processes, resources, attitudes and relationships that influence the quality of products or services.

The source document presenting standards and guidelines for quality assurance in the EHEA (ESG) includes the following sentence: "The term 'quality assurance' refers to all activities within the continuous improvement cycle, i.e. activities related to quality assurance and improvement" (Standards and Guidelines..., 2015). When assessing such terms, it is challenging to understand why a new system of concepts regarding quality and related activities is being created, reserved for higher education. For clarity reasons, this system needs to be more consistent with the long-established and widely accepted definitions given in the ISO 9000 series standards or with the current solutions introduced by ISO regarding management systems in the education sector (ISO 21001).

Although recognised by specialists, this situation has yet to be widely reflected in specific actions and new versions of relevant documents regarding the development strategy of higher education systems. So far, activities in this area have only been incidental. In France, for example, the translation of ESG used the term "quality management" instead of "quality assurance" to assign a sense of responsibility for quality to appropriate groups of university employees.

Moreover, the semantic context of quality activities at universities should depend on their performers and addressees, i.e., for example, quality management defines a broader, contemporary social perspective, quality control concerns the activities of regulatory and supervisory bodies, and quality improvement is associated with internal conditions of individual higher education institutions.

For these reasons, it would be more appropriate to use the terminology adopted with quality management systems in the relevant ISO standards, especially in official publications, including legal regulations regarding higher education. It would therefore be advisable to introduce the concept of "quality management", with a possible addition indicating the entity or object of management (e.g. university quality management system, education quality management).

According to F. Worthington and J. Hodgson (2005), the essential role of quality assurance in higher education should be to create a culture conducive to continuous organisational and professional development and self-regulation. Based on a complex institutional and legal infrastructure, QA should ensure an increasingly better ratio of the value offered by universities to the costs of their operation, which aligns with the needs of the global knowledge-based economy and learning society. One of the leading researchers of quality issues in higher education, L. Harvey (2018), editor of the journal "Quality in Higher Education", based on the 20-year history of this renowned periodical, indicated the issues that constitute the most common problems and challenges related to the concept of "quality assurance" concerning universities.

The first of these issues is the need to adjust the processes associated with quality assurance in universities to fit the specific characteristics of the university. In the vast majority of cases, employees performing teaching and research functions have negative opinions of the quality assurance processes at their universities. They need to see the relationship between the quality of the results of their academic work and the processes of internal quality assurance systems established at their Alma Mater. However, they perceive an increased burden of administrative duties that consume significant resources and do not create value for key stakeholder groups, particularly students (Harvey, 2018; Harvey&Newton, 2004).

Another unfavourable phenomenon, closely related to the previous one, is the prevalence of sceptical and even cynical attitudes to quality assurance processes, especially among academic teachers.

Due to the primary mistakes made by the university management when introducing this type of solution, the academic staff accepts them as a necessary evil, a "game for the sake of a game", which means that instead of achieving noble, socially desirable goals, frustration and waste of resources deepen (Newton, 2002). A study conducted in Australia by G. Anderson allowed the author to conclude that academics treat high-quality research and teaching as their obligation resulting from the academic ethos. Still, they resist quality assurance processes at their universities (Anderson, 2006).

One of the most frequently criticised internal quality of education assurance systems processes is student evaluation of classes/programs/academic teachers. Such an assessment should be preceded by extensive internal consultations conducted reliably, with full respect for the will and rights of respondents and assessed persons. This action is, among other things, to prevent some university employees from recognising the quality assurance system as a basis for undermining their professionalism or even as a pretext for dismissing them (Cheng, 2009).

Considering the above factors, a thesis can be formulated that unless individualised solutions, consistent with its organisational culture, are created at a given university as part of genuine cooperation and extensive consultations with the relevant stakeholder groups, they will be made at considerable expense and doomed to the failure of pseudo-quality assurance systems that arouse resistance from employees.

### Quality Assurance Standards and Guidelines for HEIs in European Higher Education Area

The previously mentioned document - "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG), was adopted in Bergen in 2005 and consisted of a total of 23 standards and related guidelines divided into three parts:

1. Standards and guidelines for internal quality assurance (7 standards),
2. Standards and guidelines for external quality assurance (8 standards),
3. Standards and guidelines for quality assurance agencies (8 standards).

During the ministerial conference in Yerevan in May 2015, an amended, current version of the standards and guidelines was issued. The division into the above-mentioned categories regarding higher education quality assurance has been maintained. The total number of standards increased to 24. The most significant changes were in the standards in category 1 - internal quality assurance.

ESG have the following objectives (Standards and Guidelines…, 2015):

* 1. define a common framework for quality assurance systems for learning and teaching at European, national and institutional levels,
  2. enable ensuring and improving the quality of education,
  3. strengthen mutual trust, thus facilitating recognition and mobility within a given country and beyond its borders,
  4. provide information on quality assurance in the EHEA.

ESG is based on the following four quality assurance principles in EHEA (Standards and Guidelines…, 2015):

1. universities bear the primary responsibility for the quality of education and its provision,
2. quality assurance is a response to the diversity of higher education systems, universities, programs and students,
3. quality assurance supports the development of a quality culture,
4. quality assurance considers the needs and expectations of students, all other stakeholders and society.

Table X.2 presents the current form of ESG, including their brief characteristics divided into the three mentioned categories regarding entities affected by activities defined as quality assurance in the EHEA.

Declared references to the needs and expectations of various stakeholder groups and the quality culture should be considered necessary for pro-quality activities in any organisation, especially concerning such a complex public university with numerous complicated relationships. However, these references were practically not developed in the document presenting ESG, which undermines the significance of these declarations.

The official document introducing ESG noted: 'ESG focuses on ensuring the quality of learning and teaching in higher education, including ensuring the quality of the learning environment and appropriate links to research and innovation. In addition, universities have strategies and processes to safeguard and improve the quality of other activities, e.g. research and management (Standards and Guidelines…, 2015). However, despite references to university processes other than learning and teaching (education), it should be clearly stated that the educational process is the main object covered by ESG. It is not without reason that quality-related activities in higher education, in the formal dimension in EU countries and other regions, are identified mainly with the quality of education.

According to the author, the need for a more appropriate emphasis on management and support processes, as well as scientific activities and relations with external stakeholders, is a fundamental shortcoming of ESG.

Considering the comprehensive nature and importance of their relationships and impacts, only systemically presented requirements and recommendations regarding all university processes can improve results in these areas. It is also impossible not to notice the lack of appropriate references emphasising the role of the involvement of leaders in pro-quality changes - university management - as another necessary condition for the success of pro-quality changes at the university.

A similar role to European standards and guidelines for quality assurance is played, mainly in North American countries, by the International Quality Principles adopted in 2016 by the International Quality Group of the Council for Higher Education Accreditation (CIQG)[[3]](#footnote-4).

**TABLE X.2. Quality Assurance Standards and Guidelines**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of standards** | **Component Standards** | **Characteristics of the standard** | **General content of the**  **standard guidelines** |
| **Internal Quality**  **Assurance** | * 1. Quality Assurance Policy | HEIs should have a published quality assurance policy for their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, ensuring the participation of external stakeholders. | Conditions to be met  by a quality assurance policy |
| 1.2. Design and approval of programmes | Universities should have appropriate processes in place to design and approve programmes. Curricula should be designed in such a way as to enable them to achieve their objectives, including learning outcomes. The qualification to which the programme leads should be defined and presented and refer to the relevant level of the National Qualifications Framework for Higher Education and the Qualifications Framework for the EHEA | Conditions to be met by curricula |
| 1.3. Education (learning and teaching) and student-centred assessment | HEIs should ensure that curricula are implemented in a way that encourages students to play an active role in shaping the learning process and that a student assessment system reflects this approach | Conditions to be met by student-centred education and assessment |
| 1.4. Admissions, progression, recognition of achievements and qualifications, and diplomas | HEIs should apply consistently previously adopted and published regulations, covering all stages of activities related to students, i.e. admission to studies, progression during studies, recognition of achievements and qualifications, and diplomas. | Conditions for recruitment, supervision of progress, recognition of qualifications, diplomas and diplomas |
| 1.5. Teaching staff | HEIs should ensure they have teaching staff with appropriate competencies and apply fair and transparent recruitment and staff development processes. | Conditions for the management of teaching staff |
| 1.6. Teaching resources and student support | HEIs should have adequate funding for teaching activities (learning and teaching) and provide sufficient and easily accessible teaching resources and support for students. | Terms and conditions for services supporting students' learning and livelihoods |
| 1.7. Information management | Universities should collect, analyse and use relevant information to effectively manage programmes and other activities. | Sources and types of information about the education process and their use |
| 1.8. Public disclosure | HEIs should publish information about their activities m.in and the programmes they provide. They should be clear, accurate, objective, up-to-date and easily accessible. | Publication of information on the educational process and its outcomes |
| 1.9. Continuous monitoring and periodic reviews of programmes | Universities should monitor and periodically review programmes to ensure that they meet their objectives and respond to the needs of students and society. These reviews should lead to continuous improvement of the program. All interested parties should be informed of the actions planned or undertaken as a result of them | Conditions to be met by curricular reviews and the information used in their |
| 1.10. Cyclicality of external quality assurance | HEIs should be subject to external quality assurance regularly in line with ESG. | Appropriateness of a cyclical and continuous external evaluation process |
| **External Quality**  **Assurance** | 2.1. Taking into account the effects of internal quality assurance | External quality assurance should consider the effectiveness of the internal quality assurance processes discussed in ESG Part 1. | The Importance of the Relationship Between External and Internal Quality Assurance |
| 2.2. Designing methods fit for purpose | External quality assurance should be defined and designed precisely in such a way as to guarantee the adequacy of the solutions to the objectives and objectives set for them, taking into account the relevant legal regulations. Stakeholders should be involved in the design and continuous improvement of these solutions. | Conditions and assumptions to be taken into account when planning external quality assurance processes |
| 2.3. Implementation of processes | External quality assurance processes should be reliable, valid, pre-defined, applied consistently and published. These include a self-assessment or similar mechanism, an external evaluation, typically a visit, a report resulting from an external assessment, and a coherent evaluation follow-up. | Conditions and assumptions that should be taken into account in the implementation of external quality assurance processes. Indication of follow-up to the evaluation. |
| 2.4. Assessment experts | External expert groups should carry out external quality assurance evaluations with the participation of the student(s) | Criteria for the selection of experts to evaluate the quality assurance system of HEIs |
| 2.5. Results criteria | Any results or evaluations resulting from external quality assurance should be based on unambiguous and published criteria that are applied consistently, regardless of whether the process leads to a formal decision. | Various forms of external evaluation results as a basis for the pro-quality activities of HEIs |
| 2.6. Reports | Expert reports should be published in a complete, explicit, and written manner accessible to academia, external partners, and other interested parties. If the Agency makes any formal decisions based on the reports, these decisions should be published together with the report. | Conditions to be met by external expert reports |
| 2.7. Complaints and appeals | Complaint and appeal processes should be clearly defined when external quality assurance processes are designed and communicated to HEIs | Conditions for lodging and handling complaints concerning the external evaluation process |
| **Quality**  **Assurance**  **Agencies** | 3.1. Quality assurance activities, policies, and processes | Agencies should regularly carry out external quality assurance activities, as set out in Part 2 of the European Standards and Guidelines. They should have unambiguous goals that are inscribed in their universally accessible mission. These objectives should be reflected in the Agency's day-to-day operations. Agencies should ensure the involvement of stakeholders in their management and activities. | Transparency of the Agency's objectives, types and objectives |
| 3.2. Official status | Agencies should operate based on established legal bases and be formally recognised by the competent public authorities as quality assurance agencies. | The position of the Agency in the legal system of the |
| 3.3. Independence | Agencies should be independent and operate autonomously. They should be fully responsible for their actions and the results of those actions and should not be influenced by third parties. | Types and factors of agency independence |
| 3.4. Thematic analyses | Agencies should regularly publish reports that present and analyse the overall results of external quality assurance activities. | Using information from the Agency's activities as a basis for structured analyses of the higher education system |
| 3.5. Resources | Agencies should have adequate financial and human resources to conduct their activities properly. | The need for stable state financial support for the Agency's activities |
| 3.6. Internal quality assurance and professional ethics / professional operation | Agencies should have internal assurance processes to define, ensure and improve quality and excellence in their activities. | Conditions to be met by the Agency's internal quality assurance system |
| 3.7. Cyclical external review of the agencies | Agencies should undergo an external review at least every five years to demonstrate compliance with the European Standards and Guidelines. | The need for agencies to be subject to an independent external review |

Source: own elaboration (Standards and Guidelines…, 2015).

According to the declaration of this organisation, these principles are consistent with the presented ENQA standards and guidelines or UNESCO-OECD guidelines (2005). These principles are presented in Table x.3.

**TABLE X.3.** Quality Principles for Higher Education Institutions adopted by the Council for Higher Education Accreditation - International Quality Group

|  |  |
| --- | --- |
| **Principle** | **Description** |
| 1. **Quality and Higher Education Providers** | Ensuring and achieving quality in higher education is a fundamental responsibility of providers and their staff. |
| 1. **Quality and Students** | Educating students should always meet high-quality standards, regardless of the learning outcomes. |
| 1. **Quality and Society** | The quality of tertiary education is assessed based on how well it responds to the needs of society, inspires public trust and upholds public trust. |
| 1. **Quality and Government** | Local and central governments play a significant role in encouraging and supporting high-quality higher education. |
| 1. **Quality and Accountability** | It is the responsibility of higher education institutions and accreditation bodies to have a solid commitment to quality accountability and to validate it regularly. |
| 1. **Quality and Quality Assurance Bodies** | Quality assurance and accreditation bodies, working with higher education institutions and their management, staff and students, are responsible for implementing processes, tools and measures of learning outcomes that help create a shared understanding of quality. |
| 1. **Quality and Change** | High-quality higher education must be flexible, creative, innovative, developing, and evolving to meet students' needs, justify society's trust, and preserve diversity. |

Source: Retrieved from <https://www.chea.org/guidelines-quality-provision-cross-border-higher-education>.

As Table x.3 shows, the principles adopted by CIQG, when compared with the ENQA standards and guidelines, define a more comprehensive nature and a broader scope of quality activities in higher education. They refer to the importance of stakeholders omitted in ESG, such as central and local authorities and society, and indicate the role of many relationships within the quality assurance system. They also emphasise the importance of changes (improvement) in academic institutions. This form fits better into the development trends of the public services sector and highlights the university's independence in decisions made.

Quality assurance is, as it is worth noting, an essential issue in the context of international academic cooperation. As pointed out by F. Trifiro, the higher education systems of different countries, and especially their external quality assurance agencies in higher education, need tools to build mutual trust in international academic cooperation. These instruments should support the efficient functioning of a system composed of four elements necessary in this context: information available to interested parties, an appropriate level of trust between interested parties, and their actual cooperation within mutually supported networks (Trifiro, 2015).

As part of its quality improvement activities, ENQA received funding for the Erasmus Mundus project entitled "Quality Ensuring Cross-Border Higher Education" (QACHE). The project was implemented from 2013 to 2016 and aimed to improve the exchange of information both within the EHEA countries themselves, as well as between the EHEA and other regions of the world, thanks to the mutual understanding of different approaches to Cross-Border Higher Education ( CBHE), ensuring its quality and opening up to the development of this field. The partnership included higher education quality assurance agencies from four European countries: Australia, the Arab Network for Quality Assurance in Higher Education (ANQAHE), and the Asia-Pacific Quality Network (APQN). As a result of the activities undertaken by this consortium, the following CBHE principles were adopted:

1. quality assurance agencies of sending and receiving countries should provide complete information about their quality assurance systems to understand and build mutual trust;
2. quality assurance agencies of sending and receiving countries should seek to coordinate and cooperate in their reviews and audits of cross-border higher education to eliminate regulatory gaps and duplication of efforts and to reduce the regulatory burden on the higher education institutions concerned;
3. networks of quality assurance agencies should facilitate cooperation between individual national or regional agencies and disseminate and support the implementation of the QACHE toolkit*.*

Therefore, such agencies should integrate their approaches with the mentioned elements, supporting universities' international cooperation in student education and employee internships.

Only if the level of mutual trust expected by the relevant parties (states, universities) regarding the value of such cooperation is achieved can the national quality assurance system in higher education be considered complete. It would be challenging to evaluate such a system positively when it does not rationally fit into the development of globally practised science and does not support mobility in this area.

Therefore, when postulating the introduction of appropriate changes to system models, it should be emphasised that the "formal façade" is certainly not a sufficient condition for effective and efficient quality activities. Therefore, it is not a condition to decree the need to establish even the best-prepared rules, standards, recommendations, or toolkits and, on this basis, to comply with documents such as quality books, procedures, instructions, regulations, or regulations that are described in detail and adapted to the sanctioned requirements. It is also not a systematic diagnosis of results, e.g., student surveys, analysis of teaching results, or observations, because, as practice shows, this type of research often becomes an end and not the basis for actual improvement activities.

A necessary condition for the success of these changes is the creation, cultivation, and development of an authentic quality culture in a higher education institution based on:

* + 1. Respect for the participation and contribution of all stakeholder groups associated with this extensive involvement,
    2. Appropriate competencies in quality management concepts, systems, methods and tools - especially in the group of leaders,
    3. a balanced share of "top-down" and "bottom-up" initiatives with clear support of the latter,
    4. systematic knowledge sharing and exchange of good practices within a given institution. A necessary condition for the success of internal transformations and initiatives that are beneficial in terms of quality is also the maturity and competence in the field of activities for the quality of the staff of national agencies dealing by law with quality assurance in the area of higher education (Loukkola, 2012).

The methods currently used by these agencies focus on something other than the previously mentioned aspects of excellence, such as the state of the quality culture at the university or openness to international cooperation. In addition to the previously given suggestions for changes regarding ESG, it is worth taking into account the following issues:

* 1. A declaration regarding the introduction of practical initiatives to develop a culture of quality and improvement, also in the spirit of internationalisation, should constitute one of the critical elements of the mission of agencies established as part of national quality assurance systems in higher education,
  2. assessments carried out as part of external quality assurance should highlight and support the dissemination of the best global practices for the development of a culture of quality and improvement, which means that
  3. systemic mechanisms for distinguishing this type of achievement should motivate universities to introduce and permanently support them through significant direct or indirect financial benefits.

## Quality Culture (PG)

One of the challenges facing a modern university is to create an environment that strengthens and promotes its internal culture of quality, which is the result of relationships within a set of values and practices common to the community of a given academic institution at various levels (university, faculty, program, subject). The internal culture of quality should logically link with institutional planning processes to support the achievement of the fundamental goals of the academic institution (Vettori et al., 2007).

Developing an organisation's quality culture is strongly related to developing other types of culture, such as leadership, communication, or organisational culture. An interesting way to find an analytical approach to different cultures is suggested by E. Schein, who states that organisational culture is a response to the organisation's challenges. The methods of operation adopted in the organisation are related to a specific challenge or problem. In higher education, the analysis of quality culture would start with the question of how the higher education organisation meets the challenge of improving quality in a specific activity area, e.g. in education or research. The quality culture model creates a framework of concepts that help analyse concepts and changes in various areas important for quality culture and identify its strengths and weaknesses (Ehlers, 2009).

Quality culture, according to the European University Association (EUA), is an organisational culture that is characterised by two separate categories of elements: values, beliefs, expectations, and commitment to quality of all groups of university employees, and elements of a structural/management nature based on specific processes that aim to coordinate individual efforts (European University Association, 2006).

Figure x.1 presents a synthetic definition of quality culture for higher education institutions according to the EUA. The figure indicates that quality culture's structural/managerial and psychological (soft) elements should not be considered separately but integrated through communication, participation, and trust.

Quality culture is associated with positively understood collective responsibility for the results of a given organisation. Its essence and the chances of a positive impact on university processes result from an appropriate balance of management involvement with bottom-up involvement of academic and administrative staff and students, supported by reference to shared values, desired attitudes, and behaviours within the institution (Bendermacher et al., 2017).

**FIGURE x.1.** Components of quality culture in higher education institutions according to EUA



Sources: Own elaboration based on (European University Association, 2010).

Based on the Quality Culture Project results, EUA experts noted that an influential internal quality culture requires a high degree of institutional autonomy. Universities' autonomy implies institutions' right to make independent organisational and administrative decisions, set priorities, manage the budget, organise staff recruitment and student admission mechanisms, and design appropriate educational forms and content. A quality culture limits unnecessary bureaucracy and thus emphasises continuous improvement rather than formulaic, retroactive control activities (European University Association, 2005).

The essential feature of the internal quality culture is transparency, which creates the right conditions for appropriate public financing of the university and ensures stability in its legal environment. Transparency and responsibility for public resources require universities to develop an internal culture of quality that will enable them to achieve socially desirable goals. The condition for the effectiveness of universities is the flexibility of response and optimisation of decision-making processes to involve stakeholders in a significant relationship with the quality of the culture.

Therefore, a quality culture requires strong, visionary, strategic leadership at the university and complementary bottom-up initiatives. Ensuring complete and widespread awareness of the importance of properly designing and implementing quality activities prepares institutions for external reviews/accreditation. The approach defined in this way highlights the need to change the way of thinking from conservative quality assurance to progressive thinking based on improvement, in which a quality culture fosters continuous commitment.

In the long term, adequately formed quality cultures of various universities can effectively support the creation of academic networks, the exchange of best practices, and better conditions for internationalisation.

G. Bendermacher et al., using the achievements of over 30 most frequently cited authors dealing with various aspects of organisational culture in higher education institutions, presented the factors that support the development of quality culture at universities and those that constitute barriers in this context. These factors are presented in Table x.4, considering the elements defining the quality culture presented in Figure x.1.

**TABLE x.4.** Factors supporting and barriers to the development of quality culture in higher education institutions, including its elements indicated by the EUA

| **Supporting factors** | **Barriers** |
| --- | --- |
| **Structural/Governance Elements** | |
| * A realistic strategy for continuous improvement * Quality Management System (np. ISO 21001) * Focus on processes * Involving staff and students in organisational decision-making * Taking into account changing stakeholder requirements * Clear rules, procedures, systems, obligations | * Hierarchical structure with typical divisions within employee groups * Lack of staff and student involvement in organisational decision-making * Neglecting to change stakeholder requirements * Lack of policies, systems, and procedures * No planned resources * Only top-down quality management initiatives * Excessive pressure on research results |
| **Psychological elements (soft)** | |
| * Flexible, people-oriented management cultures * The presence and interpenetration of different cultures * Common (educational) quality values * Commitment and leadership skills * Accurately allocate resources * Creating local partnerships * A climate of trust and understanding * Possibility of performing various functions, * Communicating the rules clearly * Communication/Quality Information * Tasks and responsibilities requirements are clear to everyone | * Rigid, inspection-oriented management cultures * The presence of robust cultures focused on disciplining * The dominant one is the research culture, underestimating the area of education * Lack of leadership skills * Lack of communication/quality information at the university * Lack of sharing of best practices across the organisation * Lack of proper communication channels |

Source: own elaboration based on (Bendermacher et al., 2017).

The analysis of the information presented in Table x.4 confirms the purposefulness of the essential conditions related to introducing changes in organisations. The organisational structure of universities is, by the nature of these entities, very complicated and, therefore, more sensitive to even minor mistakes made by the management. It does not easily succumb to change patterns that work in other organisations, most often rejecting them with very unfavourable consequences in terms of the attitude of the staff. Therefore, in the case of universities, it is more important for management to devote attention to shaping a positive quality culture, including a pro-quality climate, than to invest in tempting solutions, technologies, and external accreditations.

The author accepts the quality culture model presented in Figure x.2, which considers the synthesis of its elements consistent with the EUA concept and is determined based on many studies conducted in various world regions.

**FIGURE x.2.** Quality culture in higher education, its elements and their mutual relations

Source: own study based on (Ehlers, 2009).

As Figure x.2 shows, this model consists of 4 essential elements:

1. **Structural elements** are concepts, systems, processes, tools and mechanisms used at the university, formalised to a greater or lesser extent, ultimately exerting the desired impact on the quality of the university's activities and their effects. These are elements adapted for internal purposes, such as internal quality assurance systems based on ESG resulting from national regulations, normative management systems according to ISO standards implemented in the university / its organisational units (e.g. ISO 9001, ISO 21001, ISO/IEC 27001), excellence models - e.g. EFQM, CAF, the concepts of Lean Management, Six Sigma or Lean Six Sigma and a whole range of methods, tools and techniques for designing, supervising and improving quality. These are also processes and their formalised descriptions (procedures, schedules, plans), resulting from the solutions adopted at the university and external, such as domestic and foreign accreditations and certificates regarding the quality of education in specific fields or the authorisation to award degrees/ titles in specific fields, disciplines or professional or scientific specialities.
2. **Supporting factors** enable universities to integrate structural elements - e.g. internal quality systems - with their organisational culture. They allow individuals and teams to introduce new processes, regulations, mechanisms and principles necessary in quality systems and incorporate them into their activities.
3. **Elements of quality culture(s),** such as shared values, behavioural norms, rituals, patterns of conduct, or artefacts, are influenced by the previously presented elements, which are manifested, among others, in their successive redefinition. "Heroes" symbolise successes in improving university processes, expressed in the awards they are granted and can promote quality development in organisations. Values regarding the educational sphere, as well as scientific research, are agreed upon and documented. The organisation has common symbols, practices, histories, and patterns that stakeholders respect. In the case of higher education institutions, the phenomenon of quality culture differs significantly from that of more homogeneous organisations, such as manufacturing companies. The heterogeneous nature of universities, which are organised, among others, within faculty, institute or department structures, makes quality culture a category that concerns these organisational units rather than the university as a whole. Quality culture is always part of the unique overall culture of an organisation, and as a specific construct, it cannot be transferred directly to other organisations. However, it should be researched and analysed in a given unit, and on this basis, constructive conclusions should be drawn regarding its positive direction of development.
4. **The cross-cutting elements** that connect the various aspects within groups 1-3 previously described are participation, trust, and communication. Communicating and participating among individuals and teams is essential to harmonising different subcultures and ensuring universal involvement. Commitment as a mechanism results from internal motivation to make additional effort at work and the tendency to care about its quality. Engagement comes from providing employees with incentives, involving them in organisational decision-making, aligning management values, and appealing to employee expertise. Trust is a necessary condition for stimulating mentioned individual and collective efforts, which in turn constitute a condition for transforming the quality potential of an organisation into culturally rooted realities expressed in symbols, artefacts, values, rituals, and other elements of quality culture.

In addition to the four groups of elements proposed by U. Ehlers described above, two additional aspects should be indicated that complement, in the author's opinion, the model of quality culture in universities. These are **a sense of ownership** and **empowerment of employees** in their activities for quality. The sense of ownership reflects a naturally and positively motivated responsibility for developing a quality culture in universities. It contributes to the development of this culture by facilitating mutual support and strengthening the identity of university staff empowerment, which, in turn, allows employees to initiate improvements. This tendency affects the freedom of action of employees when using their experience and specialist knowledge in practice.

L. Harvey (2007), as part of the summary of the conference devoted to the pan-European initiative "Quality Culture Project", formulated the following conclusions regarding the culture of quality in universities:

* + - Quality culture is primarily concerned with the behaviour and interactions of various university stakeholder groups, not the operation of a formal quality system.
    - The culture of quality is based on partnership and cooperation, sharing experience connections and teamwork.
    - Leadership within a quality culture should serve an inspiring function and not be a manifestation of dictatorial attitudes. Leaders should be identified and engaged at all levels, not just within the university's senior management group.
    - The quality culture always warmly accepts substantive critical assessment, including various types of external formal evaluations and agreed internal assessments, without excluding any group of employees - including management.
  + The beneficiaries of quality culture are university stakeholders. Still, special attention should be paid to students, the most important group of clients of these organisations from a broader social perspective.
  + Quality culture promotes positive changes, supports innovation, and allows employees to take risks, admit failures and learn from mistakes.
  + The activities of external institutions within the quality assurance framework may inhibit the development of a progressive quality culture if the effects of these activities constitute "high stakes" for the university management. This may lead to risk aversion on the part of employees. Suppose there is too much to lose due to poor external evaluation results. In that case, the effect may be a pseudo-culture of quality that is reduced to following rules and conservatism rather than supporting creativity.
  + The incompatibility between the strategic goals for quality at the university and its organisational units and the goals of the quality assurance processes also constitutes a barrier to developing a quality culture, especially if the quality assurance processes do not reflect the natural work practices of the staff. This inconsistency is exacerbated by the unfortunately common situation where effective corrective actions are not taken after internal or external reviews of the quality assurance system.
  + A culture of quality requires an approach based on teamwork. An influential quality culture also seeks to engage everyone in innovative quality improvement.
  + The university's external quality assurance procedures should be flexible enough to reflect its internal quality procedures and culture. On the other hand, internal procedures should not be an uncritical reflection of these external processes if they do not support the development of a specific quality culture. In this regard, a certain degree of autonomy is necessary to develop a quality culture that recognises and encompasses internal quality activities. An institution with a robust and progress-oriented quality culture provides a basis for improvement, and external quality assurance becomes a less critical addition.
    - To the greatest extent possible, employers should be involved in quality improvement processes (not only the educational process) because, thanks to their experiences, it is possible to effectively develop a quality culture and contribute to increasing student satisfaction. Overall, in many respects, employers seem to be an untapped "resource" in this context, especially in the applied sciences.
    - The culture of quality is reflected in the adoption of a reflective, self-critical approach by the university's student and staff community. Therefore, it promotes comprehensive evaluations of the results obtained, needs, expectations, and problems.

# Quality Management Concepts and Methodologies for Higher Education [40-60]

## Total Quality Management (TQM) as the basis of improvement (PG)

Since the creation and popularisation of the TQM concept, it has been emphasised that it should occupy an important place among the approaches enabling the improvement of universities.

At the end of the 1980s, T. Stuelpnagel (1989) suggested that university management should be aware of the positive changes in various organisations concerning applying elements of the TQM concept in them and strive to develop programs supporting its dissemination.

I. Saunders and M. Walker (1991) stated that the most significant challenge in implementing TQM in universities is to design an appropriate management system structure, encouraging all groups of employees to improve the quality of the activities in which they participate. Designing a system framework that should be directly linked to the structural elements shaping the quality culture (see Figure x.2) is only a tiny part of the necessary activities. The introduction of TQM will only bring benefits if university management properly develops the soft psychological elements that contribute to its quality culture.

TQM naturally fits into the characteristics of higher education because it is an approach that treats this complexity and diversity as factors increasing the chance of introducing the expected rights, a basis and inspiration for essential changes (James &James, 1998); (Vazzana &Winter, 1997).

In 1996, B. Burkhalter (1996) noted that approximately 160 universities in the United States had introduced programs based on the TQM concept, and over 50% of all universities there had established quality councils. The scale of this phenomenon resulted from, among others, incentive programs and guidelines addressed to universities by leading American corporations, as indicated by B. Ruben (1995).

The Total Quality Forum, sponsored by companies such as American Express, Baxter, Ford, General Motors, IBM, Milliken, Motorola, Procter & Gamble, 3M, and Xerox, has made significant contributions to fostering dialogue and implementing exciting initiatives through formal partnerships. Such targeted, fruitful, honest, and not just declared cooperation between universities and private and public organisations is one of the effects of the great social potential represented by TQM and the quality issue.

Research conducted by S. Trapitsin et al. (2015) made it possible to identify specific features conducive to the introduction of the TQM concept in the academic environment, such as:

* + - organisational climate positively assessed by employees, triggering positive emotional reactions from university employees and students,
    - agreed and respected standards regarding teaching work and acquiring knowledge,
    - fair, in employees' opinion, rewarding their efforts and achievements.

In turn, M. Asif et al. (2013), summarising the results of their research, conclude that, apart from the commitment and strong, progressive leadership represented by the authorities of the academic institution, two key factors play a crucial role in contributing to the success of projects based on on the concept of TQM in universities. These are general awareness and involvement of employees in process-focused management and perception of quality from the perspective of the needs and expectations of all internal and external university stakeholders.

Although TQM emphasises integrative, systematic management of the organisation, it can be noticed that published empirical research on universities focuses instead on individual elements of these systems, e.g., only on the educational process, student satisfaction, or relations with the economic environment, and not on their holistic approach. As noted by R. Laurett and L. Mendes (2019), the interaction and interconnections between various elements and components of TQM still need to be sufficiently researched concerning university management, especially from a systemic perspective.

Future research should focus on integrating theories from various fields of social sciences to identify the critical relationships between the mentioned TQM components in a holistic approach. For this purpose, advanced statistical methods, such as structural equation modelling (SEM), should be used to estimate complex system dependencies. The issue of cultural differences between individual systems and higher education institutions in different regions of the world remains critical.

One of the most important trends in this research is the evaluation of higher education institutions concerning criteria that significantly impact the success of initiatives based on the TQM concept. However, as previously emphasised, the importance of these factors changes depending on the context of the organisation and its specific cultural conditions. Thus, applying commonly known and repeatedly verified solutions in universities, such as formal models representing the essence of the TQM concept, is a good practice. Mention should be made here, among others: EFQM, CAF excellence model, or, to a narrower extent, a normative management system consistent with the high-level structure (HLS), e.g., ISO 21001, ISO 9001.

Due to the compatibility of the features characterising TQM and models of organisational excellence or the principles of normative management systems, they can be used in a configuration conducive to shaping a quality culture at a university. Similar arguments can be made regarding the applications of Lean Management, Six Sigma concepts, and their derivatives.

The use of TQM practices in universities remains controversial in the academic community worldwide, and its benefits still need to be considered unconvincing or adequately demonstrated. Referring to these unfavourable phenomena, J. Koch and J. Fisher note that the fundamental problem is the university management's superficial, incorrect treatment of the TQM concept. It is usually considered an approach intended to support improving those activities or systems that cannot be improved so that their effects give the relevant stakeholders the value they expect (Koch&&Fisher, 1998). Improvement must concern only activities designed accurately in the context of the needs of recipients or users. The problems with noticing and understanding this simple, fundamental principle of quality management are, according to the author, the most common explanation for the controversies mentioned above and, in his opinion, unfounded criticism of the TQM concept.

The traditional culture of an academic institution may, on the one hand, support pro-quality changes and, on the other hand, constitute an obstacle to implementing TQM. In the first case, it would be necessary to emphasise the beneficial impact of the significant potential, very diversified, comprehensive tacit knowledge of universities and the great opportunities to introduce important process innovations. Problems may result, among others, from inefficient hierarchical structures, clear divisions in employee groups and their negative mutual attitudes.

According to M. Cruickshank (2003), efforts should be concentrated on two fundamental issues for change processes based on the TQM concept to be successful in universities. Firstly, it is of fundamental importance, in this context, that the culture of higher education institutions be appropriately diagnosed and appropriately prepared for changes in the staff's attitudes, values, and beliefs. Since TQM as a management concept is associated with the business sphere, the advisability of its application in the academic environment may raise numerous concerns related to the activation of ruthless market mechanisms (Youssef et al., 1998). The sceptical approach of university employees can be overcome by appropriately providing them with knowledge about the phenomenon that has been TQM for about 50 years and demonstrating its beneficial impact on various areas of organisational activity. The critical factor for the success of any change is support building active, committed leadership.

The second issue that requires special attention and determines the success of changes based on TQM, according to M. Cruickshank (2003), is the popularisation of the perception of universities as a system of interrelated elements - processes and the resources used in them. As part of a systems approach, universities should proactively develop self-assessment as a management method at the institutional and program levels and integrate formally mandated quality assurance initiatives into the institution's strategic plans. This aspect should also be considered an element of cultural change, meaning the need to identify good quality practices, ensure a genuine commitment to quality on the part of employees, ensure transparent accountability mechanisms, value the input of stakeholders and initiate improvement activities.

## Lean Management (PG)

One of the first publications in the world literature containing theoretical considerations regarding the need and possibilities of using the Lean Management concept in higher education entities was an article published in 2000 by J. Dahlgaard and P. Østergaard (2000) entitled "TQM and lean thinking in higher education". This work concluded that higher education systems need to reorient their structures to enable Lean Management to improve their processes.

According to E. Cudney and her co-authors (Cudney et al., 2020), an extensive study on the applications of the concepts of Lean Management, Six Sigma and Lean Six Sigma in higher education, the first work relating to practical applications regarding the possibility of using LM elements in this area, should be attributed to M. (Bob) Emiliani. In 2004, this author published a case study in which he presented the use of selected LM methods and tools in designing and implementing a study program at a university (Emiliani, 2004).

The concept of "Lean University" was used by C. Comm and D. Mathaisel [2005] concerning sustainable development. P. Hines and S. Lethbridge (2008) found great potential in higher education institutions to eliminate waste and increase the value of activities in the context of stakeholder expectations. At the same time, these authors noticed that universities constitute an unfavourable environment for introducing LM due to the typical reluctance, mainly of the scientific community, to introduce changes quickly. M. Doman [2011] indicated that the principles and practices of LM can be successfully applied to administrative processes in the university environment. In turn, C. Carvalho and co-authors (Carvalho et al., 2013) described the effects of the Lean Learning Academy project, consisting of the cooperation of five European universities and five international companies in connection with a training program for engineers in the field of Lean Manufacturing. This project developed a successful alternative to traditional teaching methods in engineering courses based on LM principles.

The previously mentioned J. Dahlgaard and P. Østergaard defined eight categories of losses (muda) in the context of higher education institutions [Dahlgaard&Østergaard 2000]:

1. Uncoordinated teaching, coaching, and examination activities result in students needing help passing their courses.
2. PhD students who need assistance finding a job and have no opportunity for lifelong learning.
3. Planning courses with substantive content for which students still need to obtain the appropriate qualifications.
4. Courses and subjects that do not contribute to creating real value for key stakeholders (students, employers),
5. Poor logistical planning for education and examinations means that students, academic teachers, and support staff must move unnecessarily from place to place or correct errors for which they are not responsible.
6. Lack of proper control of infrastructure supporting education regarding time, costs and quality.
7. Unnecessary expectations of teachers and students related to implementing supporting processes that must be coordinated with the basic processes.
8. Designing courses and support activities that do not meet the needs of stakeholders - customers in higher education and beyond.

J. Douglas et al. proposed an interpretation of eight categories of losses *(muda)* adopted in the classical LM approach concerning the context of higher education processes. They also presented practical examples of waste and associated costs for various stakeholders, suggesting solutions to eliminate waste. These researchers noticed that the dominant category of improvement initiatives in universities using the LM concept are projects related to administrative and service processes. However, they emphasised that "if Lean Management is to avoid the fate of TQM in the case of universities, it must also cover key processes - education and research" (Douglas et al., 2015).

J. Douglas and co-authors also noted that the literature indicates four general categories of losses occurring in the processes of higher education institutions. The first is losses (waste) concerning human potential - when universities must fully use the knowledge and skills of employees and other key stakeholders. Process losses - refer to deficiencies in the design, implementation, supervision and improvement of university processes. Information losses – occur when the information available to appropriate people is insufficient to effectively and efficiently support university processes. The fourth category refers to losses when the university does not use its material resources effectively (Douglas et al., 2015).

Regarding publications directly dealing with the issues of LM in higher education, books by W. Balzer (2010) and the previously mentioned M. Emiliani (2015a, b) should be mentioned. Balzer introduced the concept of Lean (in) Higher Education (LeanHE - LHE) in the title of his monograph. This author has developed a clear conceptual framework and practical advice for preparing and implementing LHE in an academic institution. Balzer stated that the well-documented benefits associated with using LM in various sectors of activity, both manufacturing and services (e.g. in healthcare), create a solid basis for LHE as a strategic organisational model for radical improvement of every university process. He presented several examples of American universities where elements of the LHE concept were introduced and the associated benefits recorded in these organisations.

The books by M. Emiliani are very accessible guides dedicated to management staff working in administrative positions at universities and academic teachers. Emiliani shared his extensive experience using the LM concept in the work of an academic teacher. He also described his observations regarding the functioning of universities as organisations. The author noted that the LM concept is consistent with elements of the academic tradition, such as collective decision-making, openness to the environment and the needs of interested parties. LM cannot justify employee layoff plans, forced adoption of corporate management system models, or guarantee a 100% graduation rate (Emiliani, 2015b). M. Emiliani also stated that although many professors accurately identify problems and introduce improvements in their immediate environment, most often, unfortunately, they do not refer to the natural sources of irregularities in their parent organisation and are limited to the activities of a given person.

LHE - the theoretical and practical trend proposed by Balzer - positively fits into contemporary trends related to the development of education systems. These trends are reflected in the growing interest in this issue among representatives of universities from various regions of the world.

The idea of creating the LeanHE Hub organisation was born in 2013. It was renamed LeanHE in 2016. Today, LeanHE gathers a community of practitioners who use LM and related progressive management concepts in higher education. The LeanHE organisation brings together approximately 60 universities in 3 regional sections: European, American and Australian-Asian (leanhe.org). The mission of LeanHE is to promote continuous improvement in higher education by creating networks, sharing best practices and supporting the implementation of a series of international conferences. This organisation has adopted the following values as the basis for its activities:

* Respect for people.
* Valuing people's time and effort.
* Valuing diversity.
* Valuing creativity.
* Acting with integrity.
* Challenging the status quo through continuous improvement.
* Taking an action-orientated approach.
* Taking risks.
* Learning from mistakes.
* Enjoying our endeavours.

Thanks to the mindful introduction of the LM concept, supported by appropriate competencies, and in cooperation with university administration employees, academic teachers can improve the practices that bother them by sharing their ideas with others. This way of collaboration, in turn, allows for developing a progressive quality culture and integrating the most often antagonised groups of university employees (Emiliani, 2015a).

In addition to pointing out the benefits and advantages, we should remember various types of problems, whether real or recognised by experts as potential threats regarding LM in the higher education sector. W. Balzer et al. (Balzer et al., 2016) note that the LHE concept, despite numerous successful initiatives of this type, has not yet received such solid evidence of specific benefits and standardised approaches as in the enterprise sector, effectively motivating its wider use. The lack of convincing scientific evidence of the positive impact of LM on organisational performance in the service sector has been noticed by other authors, e.g., concerning healthcare facilities, and this issue was highlighted by N. Burgess (2012). It is worth noting that the basis of LM-pull systemoperation is natural for services generally not "pushed" or provided in stock. So, simplifying a bit, we can say that services are Lean regarding the flow type! The challenge facing this entire sector, including public services, is how to "push" some of its capabilities to the markets to improve efficiency without losing quality (Arfmann et al., 2014).

M. Sunder and S. Mahalingam (2018) indicate the following factors that may limit interest in the LM concept or negatively affect its possible applications:

* + The LM concept is often wrongly associated with activities aimed at reducing employment, which is ironically emphasised by the acronym LEAN (*Less* *Employees Are Needed );* however, this is a significant distortion of the basic principle of LM - respect for people, the negative connotations of which should be avoided;
  + Students and employers, as critical stakeholders, should be treated not as typical customers but as prosumers, co-creators of the effects of university activities; without their participation, improvement projects will not achieve the desired effects; therefore, the inclusion of these two groups; among others, a system for planning projects based on LM and related training are highly recommended;
* The often observed definition of LM as the basis for grass-roots initiatives, although fundamentally accurate, is a tactical error because it somehow "exempts" the university management from the necessary involvement and participation; exclusion of management from active participation in improvement activities dooms the entire project to failure;
* The use of the LM concept should not exclude the application of other pro-quality solutions because the practical side of improvement becomes incomplete, especially in a complex university environment, e.g. selected elements and processes related to the Six Sigma concept, especially in its scientific approach, measurement of process variability, data analysis and reference possibilities, may be beneficial; normative management systems are also helpful in this context because LM does not refer to standardised practices, which in the case of large institutions play an essential role in organising many processes; there is no evidence in the literature that the introduction of LM brought quick positive effects at any university; this does not coincide with the declaration of obtaining almost immediate benefits, which is routinely repeated as an advantage of this concept;
* The LM concept should not be presented solely as a set of methods and tools but rather as a strategic concept of change common to all university employees; what matters most is in-depth knowledge and experience of everyday organisational reality - they enable leaders to take actions that improve results.

As it is known, the LM concept emphasises improvement based mainly on small, often difficult-to-identify changes and their results. It can be another disincentive, especially for a group of university decision-makers, due to the need for visible benefits confirming the effectiveness of management decisions.

## Six Sigma and Lean Six Sigma (PG)

Similarly to the LM concept, the first studies, supported by research results, on the applications of the Six Sigma concept in HE appeared in the first years of the 21st century. In 2005, L. Zhao (2005) presented a theoretical approach to improving the quality of higher education based on the principles adopted in the Six Sigma concept. The author indicated the following five principles, commonly associated with the TQM concept, that should accompany improvement activities using the Six Sigma concept (Zhao, 2005):

1. Recognising and striving to meet the needs of students, university employees, employers and societies.
2. Making decisions based on data and facts.
3. Focusing on process management.
4. Emphasising the importance of teamwork.
5. Developing the spirit of innovation.

M. Maciel-Monteon et al. tackled a similar issue. Based on the results of studies at various universities around the world, they proposed a multi-item scale for assessing the attitudes of university employees, where the Six Sigma concept was introduced. The main elements of this scale are:

* management involvement,
* training and education,
* selection of improvement teams,
* connection of Six Sigma with the university strategy,
* change of organisational culture,
* connection of Six Sigma with human resources management, c
* connection of Six Sigma with key stakeholders (customers),
* connections - establishing Six Sigma with suppliers,
* adopting clear measures of assessed processes,
* communication and obtained benefits.

These elements are described by explanatory variables that constitute the basis for expressing opinions of the surveyed people (Maciel-Monteon et al., 2020).

L. Weinstein et al. (2008) presented an original educational program addressed to MBA students, within which they planned and implemented improvement projects based on Six Sigma in local companies. These authors, analysing the course and effects of this program, noticed that the effectiveness of improvement processes in the university environment does not result from an appropriately configured set of facts, theories and tools but is primarily based on the elements of team culture - beliefs, values, behaviours and orientation.

S. Ho et al. (2006) believe that the Six Sigma concept is a platform for promoting and introducing statistical education into various educational programs in higher education. It should be noted, however, that the challenge associated with improvement projects using Six Sigma in many cases is the need to use more or less advanced statistical tools. It is assumed that qualifications of at least a "Green Belt" area condition for participation in a Six Sigma improvement team. This condition may create a significant barrier for students whose participation in these initiatives is needed and university employees. This applies for natural reasons, especially to people associated with humanities and social sciences.

Using an approach based on project management principles to improve processes typical of Six Sigma (DMAIC cycle) in education is the dominant research subject in applying this concept in higher education. This issue was analysed, among others, by E. Cudney and D. Kanigolla (2014). These authors stated that educating students in the field of quality management, based on the design approach adopted in the concept of Six Sigma and Design for Six Sigma, positively influenced the value of the educational service perceived by students. Similar conclusions were also formulated by, among others, B. Babajide and T. Moore (2015) and E. Cudney and co-authors (2014).

When assessing the applications of the Six Sigma concept in higher education, it should be noted that it is not used as a method of increasing the effectiveness of activities at universities - e.g. by saving time, reducing variability or eliminating unnecessary activities. However, to a greater extent, it is associated with the increasingly better adaptation of the teaching service to the expectations of students (more practice!) and employers who need employees who understand this practice. This function is crucial, but it does not exhaust the possible applications.

For these reasons, there is a natural need to integrate both key quality concepts of Lean Management and Six Sigma. The previously mentioned LM practices, although enthusiastically accepted as relatively simple, bottom-up solutions, are often ignored by university management staff due to false arguments based on superficial knowledge about their lack of scientific basis. Six Sigma, as a concept based on solid, recognised scientific methods, including statistical analysis and experiment planning, gives greater credibility to the improvement activities undertaken, especially in the scientific community. For these reasons, it is appropriate to consider using an approach that integrates both concepts - Lean Six Sigma (LSS).

As noted earlier, the LSS concept is not only a combination of Lean Management and Six Sigma but also ensures the synergy of their joint effect. If LM is implemented without using Six Sigma elements, the potential opportunities associated with scientifically based data analysis tools that allow the use of the full potential of improvement in the organisation are usually omitted. However, suppose Six Sigma is adopted without elements of the Lean concept. In that case, a solid set of tools and a structured approach to improvement do not have a practice-proven strategy enabling widespread participation and application in the organisation. The hybrid LSS approach brings better results than either because it integrates the human and process aspects of the organisational ecosystem.

The goal of LSS is to transform an organisation, usually functionally oriented, into a process-oriented organisation, using the management of improvement projects based on the DMAIC cycle characteristic of the Six Sigma concept (Sunder, 2015).

Despite the growing importance of LSS in various sectors of global economies, including public services, very few universities use this concept to improve processes (Antony, 2014). M. Sunder (2016) indicated several examples of universities that, in his opinion, stand out in the use of this concept. These are Heriott-Watt University and Kings College (Great Britain), Miami University, Valdosta State University, University of North Carolina and University of Central Florida (USA) or National University of Singapore (Singapore).

In another study, J. Antony et al. (2012) identified four elements of the complex university environment which, according to the opinion of researchers from various countries, should contribute to the proper adaptation of the LSS concept in this type of environment:

1. **Inseparability** - unlike the manufacturing sector, in higher education, as with many other services, production and consumption cannot be separated as two value chain elements. Teaching and learning make one joint process.
2. **Immeasurability** - the intangible nature of the educational process significantly differs from the measurement of its characteristics, for example, the efficiency of a production process in which there are physical properties and well-known measurement procedures. Many features confirming the appropriate education quality or scientific research level can only be assessed descriptively. Moreover, quality measures in higher education may need to be individualised in close connection with the quality culture of a given university.
3. **Social importance** - higher education is essential for every country's social and economic development. Universities, whose mission is to create and transfer knowledge, are critical to the global socio-economic ecosystem. Compared to other areas of life, universities are responsible for preparing staff to earn money and pay taxes and for sustainably shaping the quality of life in their surroundings.
4. **Inadequacy and conceptual inconsistency - essential concepts in the business sector do not have** equivalents in the context of higher education. A classic example is the ever-present debate surrounding the idea of "customer" regarding students. Some researchers accept the thesis that a student should be treated in the same way as a company's customer. However, many do not agree with this thesis because, for example, not all students' immediate expectations are consistent with those of other key university stakeholders (e.g. employers) or may change significantly during the education process. A specific approach to the concept of "customer" in higher education also implies a different understanding of typical related issues, e.g. customer satisfaction or customer loyalty.

According to N. Simons, the American Association for Quality, one of the most distinguished organisations for the development of quality knowledge, recommends the use of Lean Six Sigma as a management strategy in universities since this concept (Simons, 2013):

* makes it easier to meet various accreditation requirements,
* serves as a universal pattern of behaviour when solving problems,
* promotes solutions that ensure the involvement of all employee groups, leading to process improvement,
* indicates appropriate metrics for monitoring the quality of critical processes,
* emphasises the role of various process groups as management objects, including by visualising the problems that arise in them,
* uses information regarding the needs of internal and external stakeholders,
* helps to identify and reduce hidden costs.

J. Antony et al. indicated barriers and critical success factors (CSFs) regarding introducing the LSS concept in higher education institutions. Typical barriers were (Antony et al., 2012):

* lack of proper understanding of university processes,
* lack of understanding of the value of processes in the context of stakeholder expectations,
* lack of awareness of the benefits of Lean Six Sigma in the public service sector,
* treating Lean Six Sigma as a way to quickly fix current problems rather than as an opportunity to improve the management system continuously,
* lack of vision of the desired organisational culture.

Critical success factors for LSS initiatives in higher education responding to the problems mentioned above are (Antony et al., 2012):

* + uncompromising support and commitment of top management,
  + ensuring effective communication at all levels,
  + strategic and visionary leadership,
  + project selection and setting priorities based on risk and opportunity analysis,
  + quality-oriented, progressive organisational culture.

It is worth noting that the expected problems and the factors supporting change processes in universities are very similar to those indicated in the global scientific literature related to quality management issues in the public services sector.

Researching the attitudes of, for example, university administration employees can show the management whether, given the current state of organisational culture, implementing this type of strategy may receive active support from this group. Thanks to a detailed analysis of respondents' attitudes regarding individual explanatory variables, it is possible to define precisely targeted improvement actions. The lack of such references most often leads to implementation errors, resulting in employees returning to their old ways of behaving, and an LSS initiative that needs to be maintained correctly will fail sooner or later.

## Normative Management Systems (PG)

When discussing contemporary concepts of quality management in higher education, one must include normative (standardised) management systems, primarily those described by models presented in international standards published by ISO.

Implementing quality management systems (QMS) in universities, e.g., according to ISO 9001, can be very diverse. This diversity results from different motives and needs of individual entities. One such premise is, for example, the requirements of international organisations adopted as part of the system for recognising specialised qualifications (diplomas) of graduates of a given type of university. Quality management systems are implemented and certified in universities, selected faculties, and individual departments or laboratories. It is not easy to indicate which of these approaches is optimal. An implementation method confirmed in large organisations is pilot implementation on a smaller scale (e.g. a selected university department or a selected central administration unit) and using positive experiences in other organisational units.

Even though the use of QMS according to the ISO 9001 standard in higher education institutions worldwide is quite common, the interest in this phenomenon still needs to be higher than in the group of enterprises. This tendency is due to many reasons, including:

* + Lack of intense "market" - external factors motivating universities to implement and certify QMS or other normative systems; in enterprises, there is natural pressure from different companies - customers, mainly related to building trust in the supply chain or creating joint activities for quality within the cooperation network;
* Governments of individual countries rarely decide to support this type of initiative through, for example, systems of subsidies or material incentives for universities, unlike other categories of entities in the public sector, such as public administration or health care;
* The stable situation, especially for large public universities, which often have a monopoly position in their services in a given region due to historical conditions, a well-established positive image or a rich technical and living infrastructure that is difficult to replace. They have no internal solid motivation to incur additional costs related to the implementation, certification and maintenance of such management systems;
* Non-recognition of the certificate of compliance of the normative management system at the university as a document confirming, at least to some extent, the fulfilment of the requirements of national education quality assurance systems (accreditation);
* ISO 9001 and other international standards defining models of management systems are usually negatively perceived by liberal-minded university staff who do not have adequate knowledge about them; they appear as rigid, command-oriented sets of additional bureaucratic requirements, the introduction of which will probably not improve anything, and will probably limit academic freedom and contribute to further waste of resources.

Due to the flexibility of structures and the more fleeting nature of service relationships, especially in the group of academic teachers, there may be many problems that a routinely introduced QMS according to the ISO 9001 standard will not help solve but may even increase their burdensomeness.

As a result of their empirical research, K. O'Mahony and T. Garavan noticed that many universities were making severe mistakes related to the formal requirement of the ISO 9001 standard-setting quality goals. Instead of referring to stakeholders' real needs and expectations, these goals usually have a pseudo-qualitative character, as they concern traditional bureaucratic practices and statistical and settlement legal requirements (O'Mahony& Garavan, 2012). The same authors used a four-element analytical model in research on implementing a QMS in higher education. This model consists of leadership and sponsorship of improvement projects, stakeholder involvement, quality culture and management systems, techniques and tools. These researchers found that top management leadership and sponsorship are the most critical drivers of successful quality system implementation. They also focused on rational processes for implementing a QMS and techniques and methods to improve processes (O'Mahony&Garavan, 2012).

R. Ab Wahid (2019), based on a systematic literature review, identified the following key factors which, regardless of location, have a dominant impact on the success of the process of introducing and efficient functioning of the QMS according to the ISO 9001 standard in higher education:

* + Involvement of people in activities related to the management system, including top management, academic teachers, and other university employees; such widespread involvement should concern the planning and implementation stages and the ongoing operation and improvement of such a system. It is necessary, at the beginning of this process, to plan appropriate resources to compensate for the additional duties of those performing these activities (e.g. additional remuneration, exemption from other duties, training during working hours); although it seems controversial, practice confirms the desirability of actively involving students in these activities;
  + Ensuring high-quality training and appropriate substantive preparation for employees, including necessarily the management staff; the time, form and content of training should, of course, vary depending on the functions and responsibilities of individual people in the relevant processes related to the management system; when planning this type of training, no group of university employees can be omitted; it is worth having socially active students and doctoral students participate in them;
  + Treating the implementation of a QMS as a transformation aimed at creating and strengthening a quality culture. For this purpose, various strategies dedicated to specific groups of employees can be used, such as:
    - * selecting and building the potential of change leaders in various groups,
      * creating improvement teams with a representative composition for various groups of employees/students,
      * team goal setting using key performance indicators ków,
      * planning improvement projects on an annual basis;
  + Introduction of a realistic internal system of improvement suggestions along with appropriate motivating mechanisms;
  + Including representatives of all key stakeholder groups in activities related to the QMS, not only internal but also external - especially employers; this is a requirement related to section 4 of ISO 9001 - "Context of the organisation", but also an element of shaping the university's quality culture with a pragmatic basis;
  + Monitoring processes within the scope of the QMS should not be limited to traditionally used solutions, such as student surveys assessing academic teachers. Peer evaluation methods should be introduced more widely*,* research with the participation of employers and the evaluation of the management staff by employees, which, if its consequences are visible, should be an element of building trust and a climate of fair relations in the organisation.

In addition to this information, it should be noted that in universities with internal quality of education assurance systems based on regulations in force in a given country, normative quality systems should be integrated with them. For example, in European countries, the standards and guidelines developed by ENQA (ESG) constitute requirements for the quality of the effects of the educational process, within the meaning of the ISO 9001 standard, and for natural reasons, they are a crucial element of the QMS implemented in universities. Consequently, all resources, including human resources, processes and documented information, become part of the QMS.

Similarly, the relationship between the standards of commercial accreditation organisations and the requirements contained in the ISO 9001 standard can be considered. E. Dumond and T. Johnson compared the standards of the prestigious Association to Advance Collegiate Schools of Business (AACSB) accreditation and the requirements of the ISO 9001 standard. They concluded that the AACSB organisation should include some elements of the ISO 9001 standard and process practices related to normative management systems to improve the accreditation process. These include the introduction of a formalised internal audit as an essential mechanism for ongoing supervision of the management (sub)system, the implementation of a realistically planned process approach, systematic continuous improvement, and the use of other QMS principles according to ISO 9001 as fundamental elements of the quality culture at the university or its organisational unit (Dumond&Johnson, 2013).

To summarise the thread on using QMS according to the ISO 9001 standard in higher education, the conclusions of recent research conducted in Lithuania are worth mentioning. This research involved 26 universities (over 50% of all universities in Lithuania) in which QMS was introduced according to the ISO 9001 standard. According to respondents, the ISO 9001 standard was perceived as a set of good management practices consistent with the mission and vision of the university, which can be modified following the institution's needs. Representatives of the surveyed universities stated that this system has a positive impact on the image of the university, communication with external stakeholders, supervision of documents and processes, effects of research and administrative activities and the quality of education (Kasperavičiūtė-Černiauskienė&Serafinas, 2018). They should not be disregarded even when recognising that these positive opinions are not fully representative of other countries, and they should create an idealised image of the conditions accompanying the introduction of normative management systems in higher education institutions that are too superficial. As mentioned earlier, the dynamically growing diversity and innovation of solutions regarding management systems causes the shortcomings of these standards indicated so far, such as:

* Excessive generality of requirements,
* Lack of explicit sector/industry references,
* Omitting important factors affecting management efficiency have been mostly eliminated and should not cause problems.

Referring to specific factors regarding the organisational culture of an academic institution and potential or actual barriers, in the author's opinion, the development of normative management systems on a global scale should be treated as an opportunity to improve management quality in higher education systems. It can be concluded that it is consistent with scientific and technical progress trends and social and economic development.

In recent years, as a result of the demand reported by experts, standards have been published that define issues related to the management of organisations more precisely than before. These positive changes include various categories of organisations (e.g. enterprises operating in multiple sectors of the economy, public organisations) as well as different spheres of activities, resources or problems that the management system is to address, e.g. quality of products or services, environment, occupational safety, information security, risk, energy, documentation, anti-corruption activities, crises, mass events, sustainable development, etc.

Thanks to this diversity, the standardisation of management system models opens up many interesting application possibilities in a heterogeneous university environment.

Taking into account education - the critical area of university activities, and referring to the previously presented conditions accompanying the implementation of QMS according to the ISO 9001 standard, it is necessary to present one of the newer, still little-known standards - the ISO 21001 - Educational organisations. Management systems for educational organisations. Requirements and guidelines for use (ISO 21001, 2018).

The predecessor of ISO 21001, developed in 2003 and amended by ISO in 2007, document IWA 231 (International Workshop Agreement) "Quality management systems. Guidelines for the application of ISO 9001:2000 in education" was withdrawn due to the revisions of the ISO 9001 standard.

In 2010, the ISO 29990 standard "Educational services in non-formal education and training. Basic requirements for service providers" was issued. Due to its limited use in the educational system, this standard has received little public interest. Therefore, organisations providing educational services, including universities, have requested the development of a standard subject to certification, i.e. containing requirements that meet the needs of the environment of these organisations. Various educational institutions can now choose to be certified based on the requirements of the ISO 21001:2018 standard to avoid ambiguities related to the terminology used in the ISO 9001:2015 standard.

One of the significant differences between ISO 9001 and ISO 21001 is the principles that form the basis of both systems. The seven principles of the QMS system according to ISO 9001, i.e. customer orientation, leadership, people involvement, process approach, improvement, decision-making based on evidence and relationship management, have been included in the ISO 21001 standard and supplemented to 11 principles.

1. Focus on the needs of learners and other beneficiaries.
2. Visionary leadership.
3. Employee involvement.
4. Process approach.
5. Continuous improvement.
6. Evidence-based decisions.
7. Relationship management.
8. Social responsibility of an educational organisation.
9. Accessibility and fairness.
10. Ethical behaviour within the educational process.
11. Security and data protection.

It is visible that these principles, although published only three years later than the QMS principles according to ISO 9001, were already defined in a new, extended system of factors determining global sustainable development goals, better reflecting the idea of Industry 4.0.

The requirements in the ISO 21001 standard are general. They can be used in educational organisations, supporting their development of competence potential through teaching, training or research, regardless of the type and size of these entities and the academic service provided (Anttila &Jussila, 2017).

The arrangement and nature of the requirements in this standard correspond to universal solutions used, among others, in the ISO 9001:2015 standard. Thanks to the universal ten-chapter structure, adopting ISO 21001 requirements should be easy for organisations that have already obtained a certificate for their management system.

Referring to the concept presented in the ISO 21001 standard, Figure X.3 presents the educational organisation management system's role (EMOS) as an essential element in ensuring compliance with the adopted vision as part of implementing the university's mission.

**FIGURE X.3.** The educational organisation's management system (EOMS) role is in the university's mission and vision.



Sources: Own elaboration based on (ISO 21001, 2018).

As one can see, this management system is based on an appropriately developed quality culture at the university. When EOMS is implemented in an organisational unit (e.g. a university department), the elements presented in Figure X. 3 should be related to this unit.

Table X.5 lists the elements constituting the content of the main sections (chapters) of the ISO 21001 standard. At the same time, Figure x. 4 presents the relationships of these EOMS elements as a diagram of an open system based on the universal PDCA cycle of continuous improvement.

In one of the first articles on applications of ISO 21001 in higher education, E. Wibisono, analysing the layout and content of this standard, notes that "customers" of education systems, as in the case of other services, actively participate in the education process. This relation suggests emphasising intensified communication between the institution (university) and its students. This aspect is highlighted in this new standard. E. Wibisono notes that the scope of the elements of the ISO 21001 standard is larger than the scope of the ISO 9001 standard since the management of an educational institution, and a university in particular, is more complex than the management of most other organisations. The author also indicates the special educational needs emphasised in this standard, the fulfilment of which by the educational entity is an expression of understanding social needs. In summary, he puts forward the thesis that using ISO 21001 in universities may constitute an interesting topic of empirical research related to the issue of quality in higher education (Wibisono, 2018).

**TABLE x.5.** Elements of the ISO 21001 standard constituting requirements for EOMS.

| **Chapter of the**  **ISO 21001**  **standard** | **Chapter title** | **Requirements** |
| --- | --- | --- |
| **Chapter 4** | **Context of the**  **organisation** | * Understanding the organisation and its context * Understanding the needs and expectations of stakeholders * EOMS Scope |
| **Chapter 5** | **Leadership** | * Leadership and commitment, including additional requirements for special needs * Focus on students and other beneficiaries * Developing and communicating the quality policy of the university * Assign organisational roles, responsibilities, and permissions |
| **Chapter 6** | **Planning** | * Planning activities to address risks and opportunities * Setting the university's goals and planning to achieve them * Planning and managing change |
| **Chapter 7** | **Support** | * Identify and provide the necessary resources for the operation of the EOMS (human resources, facilities, organisational knowledge) * Competences and training (including competencies needed by learners with special needs) * Awareness and communication * Creating, updating, and curating documented information |
| **Chapter 8** | **Operation** | * Planning stages of education, including supervision over the education cycle * Identifying and communicating requirements for educational products and services and any changes made to them * Establishment of oversight (including design and development controls) and procedures * Supervision of processes, products and services delivered from external sources * Providing educational products and services |
| **Chapter 9** | **Performance evaluation** | * Monitoring and measuring the satisfaction of learners, other beneficiaries and staff * Analysis and evaluation of the information obtained * Conducting internal audits and management reviews |
| **Chapter 10** | **Improvement** | * Responding to non-conformities and taking corrective action * Continuous improvement of EOMS * Identify opportunities for improvement |

Source: Own elaboration based on (ISO 21001, 2018).

**FIGURE X.4.** EOMS structure as an open management system

Source: Own elaboration based on (ISO 21001:2018).

In addition to the above, other standards of management systems also correspond to selected processes and needs of universities. For example:

* The ISO 30401 standard presents the model of a knowledge management system (ISO 30401, 2018).
* The model presented in the ISO 45001 standard can be used to manage occupational safety (ISO 45001, 2018).
* One can refer to the guidelines in the ISO 26000 standard to implement the principles of social responsibility at a university (ISO 26000, 2010).
* Reliability of testing and analysis of results conducted in university laboratories can be supported by a management system described in the ISO/IEC 17025 standard (ISO/IEC 17025, 2017) can be implemented.

Universities, using the universal structure (HLS – high-level structure) of ISO standards presenting models of management systems, can naturally, as needs arise, expand their scope to include other areas important from the point of view expectations of its stakeholders. In this way, an integrated university management system can be created.

**X.3 Conclusion**

The considerations presented in this chapter only exhaust some issues related to this area that are the subject of the global debate. However, they indicate the essential elements of this important trend in the research and practice of institutions constituting a vital element of the sustainable development of individual countries and globally. To sum up:

1) The definitions of quality in higher education used by various experts need a solid theoretical basis. Therefore, an original definition of quality for higher education institutions was proposed based on an extensive literature review and normative solutions.

2) The excellence category concerning HEIs is intended to serve a motivating function and should not be associated solely with accreditation and certificates obtained. A good approach is to replace the term "excellence" with the form "improvement", emphasising both the essence of pro-quality activities and their purpose at universities. Criteria for organisational excellence should be incorporated and referenced as part of quality assurance activities.

3) It is challenging to identify convincing arguments that would justify the benefits resulting from the operation of QA systems in higher education. One of the goals of quality-promoting activities concerning HEIs should be the thorough improvement of these systems. Therefore, attention should be paid to the shortcomings of many standards and guidelines developed within various education systems, including:

a. marginalisation and often omission of processes other than education that characterise university activities,

b. vague references to university stakeholders other than students,

c. invoking the concept of quality culture without providing its features and ways of diagnosis.

4) Quality culture primarily concerns the behaviour and interactions of various university stakeholder groups and requires strong, visionary, strategic leadership at the university and complementary bottom-up initiatives. Thanks to the diagnostic methods developed by experts, it is possible to determine the state of the quality culture at a university or its organisational unit and, on this basis, plan the necessary actions to properly shape this culture's development.

5) Introducing concepts such as TQM, Lean Management, Six Sigma, or Lean Six Sigma in universities should be considered an essential element of modernising these organisations. They naturally support the development of a quality culture by promoting a combination of top-down and bottom-up improvement initiatives. Thanks to proven measurement methods, analysis and reorganisation focused on process variability and the resulting risks, they can be used to provide a structured approach to quality improvement.

6) Various areas of university management that are presented in normative management systems, mainly those published by ISO, could be easily supervised effectively. In addition to quality systems, it is worth considering good management practices in areas such as information security, knowledge management and university social responsibility. Because the systems are based on identical principles such as TQM, LM or Six Sigma, they can be a valuable addition to the quality infrastructure of these organisations. Certification of these systems, well recognised in the business environment, could, in most cases, replace accreditation of questionable value.

# Applying Quality Management to Enhance Stakeholder Satisfaction [30-40]

## Aligning Quality Management Approaches with Stakeholder Needs (JPSZ) [7-9]

## Integration of Quality Management Systems in Higher Education Institutions (JPSZ) [7-9]

## Stakeholder Satisfaction Driven Quality Management (JPSZ) [12-16]

## Challenges and Best Practices (JPSZ) [5-7]

# Conclusion [10-15]

## Summary of Key Points (JPSZ) [4-6]

## Implications for Higher Education Management (JPSZ) [3-5]

## Recommendations for Future Research (JPSZ) [3-4]

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# Annexes

1. Based on (Brusoni et al., 2014). [↑](#footnote-ref-2)
2. According to the ISO 9000:20015 standard, quality assurance **is a part of quality management** to ensure confidence that quality requirements will be met. [↑](#footnote-ref-3)
3. Council for Higher Education Accreditation International Quality Group - a forum for universities, accreditation and quality assurance organisations, higher education associations, governments, businesses, foundations, and individuals worldwide to address quality assurance issues and challenges in higher education. The Council for Higher Education Accreditation (CHEA) brings together academic institutions interested in accreditation, mainly from the United States and individual institutions from other countries in North America, South America, and Asia. [↑](#footnote-ref-4)