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Article

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STAKEHOLDERS' PERCEPTION REGARDING SUSTAINABLE UNIVERSITIES

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Abstract

The aim of the study is to determine and confirm the main vectors that define the concept of sustainable university based on the example of a higher education institution that is representative for the Romanian economic higher education system. As objectives the authors defined the following: clarifying the concept of sustainable university based on the literature review; determining the main groups of stakeholders of the university and classifying them tridimensional; researching the perception regarding the vectors needed for the sustainable development of the university. The research stems from the three main stakeholders' categories, in the authors' opinion. A quantitative marketing research was undertaken on two main stakeholders' categories: students, and representatives of the business environment that are part of the Alumni Association of the university. Using the factor analysis, the four vectors that define, in the authors opinion, the sustainable university were validated, which was confirmed. A qualitative research based on a focus group among academia and management counterbalanced the results of the study, confirming through results the stated hypotheses. The limitations of the current study stem from the involvement of only a part of the university's stakeholders. Future research could investigate the perception of other stakeholders.

Keywords: sustainable development, higher education, stakeholders, quantitative and qualitative research, sustainable university.

JEL Classification: I23, M14, M31

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Introduction

The concept of sustainable development of the Romanian society has become a central theme of the academic research, as well as of the government's decisions, due to the major issues that the contemporary world is facing, such as: the limited resources needed for development, the social-economic globalization, and the deepening of the international competition in all society's aspects. The role that the university plays – as the main supplier of academic culture – in clarifying, operationalizing, and implementing the concept of society's sustainable development is an important one, and for two main reasons, a defining one. As a result, the university must not only be a promoter of the theory regarding society's sustainable development but ought itself to transform in a sustainable higher education institution. The sustainable development of the university is not an individual goal, rather a proficient manner through which it can develop, in a holistic long-term approach, its competitive advantage, reputation and image.

Stakeholders' research – representing the entirety of the groups of interests regarding the activity and dynamic of a university – is largely reflected in the literature review (Freeman and McVea, 2001, Lee et al., 2013; Slaba, 2015; Findler et al., 2018). Far less is debated the way these understand and position themselves towards the sustainable development of the university (de La Harpe and Thomas, 2009; Chapleo and Simms, 2010). By reviewing the literature in the field, the authors identified that the perception of the different category of stakeholders towards the sustainable development of the university was very rarely discussed (Yuan and Zao, 2013; Dabija et al., 2017). The current study aims to analyse the view of three categories of current stakeholders and former clients of the higher education institution (students, academia and alumni representatives), addressing thus the gap in the literature in the field.

The study of the mentioned categories of stakeholders is the central theme of this article. This focuses on the vectors that, in the authors' view, conceptually define the sustainability of a university. The authors consider that the shared results of the two researches represent the originality of the present article in debating the issue stated in a representative university from Romania. As a member of the EU, Romania needs to align its higher education system to the quality standards of the countries that are leading the field (Păunescu et al., 2011; Dabija et al., 2014). As the sustainable development of a university represents a strategic option in the long term, this represents an essential factor for the Romanian academic environment for reaching its before mentioned purpose. An example in this regard is offered by the „Babeş-Bolyai” University from Cluj Napoca that embraced the program „UBB Goes Green” includes the higher education institution in a larger movement in the field (Appendix to HCA no. 21036/31 oct. 2016). Another example is the „Lucian Blaga” University from Sibiu, that adopted the „Development strategy for LBUS 2020 – Sustainability and excellence for the community”. The university's sustainability requires an integration of a proper marketing program, in order to regard the academic environment as the main actor of its community (Pop, 2019). This way of thinking and acting leads to a better university governance, that shows a high degree of responsiveness and representation (Bădescu, 2018) for the university's stakeholders. As a result, the employers' perception on the academic environment's ability to deliver high skilled graduates will improve. The low confidence, that some of the employers express when it comes to the academic process, stems from their evaluation of the graduates' experience in relation to their academic performance or the reputation of the faculty they graduated from (Păunescu et al., 2011).

The study is based on the stakeholders' theory (Freeman, 1984a; Argandoña, 1998; Phillips et al., 2003; Friedman and Miles, 2006; Harrison et al., 2015) which the authors adapted to the academic environment with the help of the sustainable university theory (Lee et al., 2013; Shi and Lai, 2013; Vaughter et al., 2013; Dabija et al., 2017; Findler et al., 2018). The integration of the two theories creates the premises of a unitary approach for all the stakeholders in order to better capture their understanding and willingness to act for the sustainable development of a university.

The aim is reflected as follows in the article: a) a review of the existing literature in the field undergone with the purpose of bringing conceptual clarifications, but also to comprehend the diversity of other authors' point of view on the topic; b) the detailing of the research methodology in two areas: a representative quantitative research among two categories of stakeholders (students and alumni, respectively) whose results were processed using the factorial analysis – as multivariate technique (Cătoi, 2009); this grouped the set of variables that define the sustainable university in four factors, that were further investigated; a qualitative research among foreign academia, whom lectured at the researched university, in order to refine, based on several hypotheses, some future actions to be taken in order for a higher education institution to be regarded as sustainable; c) the discussion of the results and theoretical conclusions, and of managerial recommendations.

1. The sustainable development of the university

In the past two decades, the concept of a sustainable cohabitation in a durable society, as well as the importance of a sustainable approach from the universities has become a central issue globally (Lee et al., 2013; Yuan and Zuo, 2013). It is because of this that public and private organizations, regardless of their activity, lately have, as a main purpose, a sustainable approach. Private and public companies likewise, and especially universities are striving to become a benchmark for sustainability, with the aim of becoming themselves organizations that can shape the mentality of the new generation in terms of a sustainable long-term development of the entire society (Pop et al., 2012; Dabija et al., 2017).

Sustainable development in universities represents one of the main strategic objectives, which influences not only universities, but also the society (Pocatilu and Ciurea, 2011), as the higher education institution generates and transfers knowledge which may contribute to a sustainable future (Lotz-Sisitka et al., 2015). This transfer is carried out on two levels (Weiß and Barth, 2019), the first one – micro, which focuses on the lectures, on inside and outside the classroom activities, and on the teaching and learning processes, and the second level – macro, which targets the organizational culture, embraced by the stakeholders. Sustainability generally determines new demands for all stakeholders, be it either customers, suppliers, financiers, or local communities, government bodies or banks (Dinu, 2010). With reference to universities, the sustainable development suggests other dimensions, because of the complexity of the institution (Dabija et al., 2017) and of the different approach in segmenting the educational market (Nedelea and Dolipschi, 2004). Shi and Lai (2013) believe that sustainability in public institutions must be addressed keeping in mind the different methodological levels, which are vision, mission, decision factors and strategy. The vision refers to the perception of the intuition regarding the sustainable development and its conceptualization, while the mission represents a set of principles, rules, standards and methods that allows for the vision to be put into practice. Also, the decision factors represent

the entities that apply the sustainable development principles for the university, whereas the strategy is the practical representation of these principles (Dabija et al., 2017).

Sustainable development represents ultimately a strategy derived and adapted to the day to day reality, which aims, on one side, at promoting the intellectual capital, material wellbeing, independence, economic growth and development of the competitive advantages (Dabija et al., 2017), and on the other side at building a democratic, reasonable and ecologic society. In order to fulfill these objectives, the university must carry on certain activities, ranging from:

- promoting a limited use of the resources (Counsell, 1998) so that future generations can enjoy the same benefits (Dabija and Băbuț, 2013);
- preservation of the environment, by creating a green university, establishing efficient partnerships with the civil society in order to develop innovative ideas that can lead to social and economic progress;
- implementing lectures on sustainable development and changing the organizational culture, in order to support sustainable development in the long term (Weiß and Barth, 2019).

Some authors point out that there are certain limitations in implementing sustainable development in universities (Too and Bajracharya, 2015), especially in integrating the concept's principles. Among these principles, the recent literature mentions: building a connection between the sustainable development and the knowledge capital of the university (Elena-Pérez et al., 2011; Pelău et al., 2011), developing a global strategy that integrates all the activities for preserving the environment and for a reasonable consumption of the resources (Shi and Lai, 2013) and a lack of concern regarding expenses, as public universities are largely financed by public funds. Furthermore, the costs (Dabija and Băbuț, 2013) and the affiliated risks, the inefficiency of the implemented methods, as well as the low interest of the affected parties become challenges of the sustainable development of the universities.

Despite these hesitations, there is however a framework, based on three important aspects which support the sustainable development and orientation in universities (Dabija et al., 2017). According to this, universities must reduce the impact of their academic activities on their environment, must have responsible and sustainable partners, and must introduce lectures that promote the sustainable development concept.

- The first aspect refers to the existence and implementation of a management system aimed at preserving the environment, which in order to be efficient must involve all stakeholders.
- The second element to consider supports the mutual practice of social responsibility principles in all stakeholders' relationships.
- The third condition concerns the teaching and research process.

Most of the literature focuses its attention firstly on developing a sustainable curriculum (Barnett et al., 2001) and the affiliated process (Lozano, 2006; de La Harpe and Thomas, 2009) and second on a systematic review of the sustainability theory (Barth and Rieckmann, 2009; Kajikawa et al., 2014; Findler et al., 2018; Weiß and Barth, 2019;). While the review and research regarding the change and implementation processes regarding the curricula have substantially improved the understanding of the sustainable development concept, there is an insufficient research regarding the impact and results of the activities undertaken in the

society, environment and economic field (Findler et al., 2018) and of how and when such processes were implemented (Weiß and Barth, 2019). Equally, Vaughter et al., (2013) considers that the literature in the field consists mostly of case studies regarding the institutional undertaking, with little examination of viable policies, while Koehn and Uitto (2014) highlight the insufficient research regarding real impact and the day to day changes regarding environmental sustainability, the policies and human wellbeing (Findler et al., 2018). In Findler's et al. (2018) opinion, these aspects determine two issues: on the one side for most of the higher education institutions communicating their sustainable development approach becomes an essential issue in satisfying the expectations of their stakeholders, and on the other side, the concept of sustainable development in the tertiary education system is still unclear (Koehn and Uitto, 2014).

2. The development of stakeholders' theory in the higher education system

Defining and managing the stakeholders has become an important field for an efficient management (Mitchell et al., 1997), for the process of decision taking and planning the strategy (Bryson, 2004), for determining and solving their issues (Freeman, 1984), and lastly, knowing how they can influence and affect the university (Mitchell et al., 1997). All of these play an important role in the university management and on how the decision factors can be involved in leading the higher education institution. The stakeholders model broadened once Freeman (1984) published his book „Strategic Management: A Stakeholder Approach”, which lays the foundations for what we nowadays call stakeholders theory, which in Phillips, Freeman and Wicks (2003) opinion is an organization management and ethics theory. In the paper in question, it is mentioned that the oldest definition belongs to an internal report from the Stanford Research Institute from 1963, which claims that the stakeholders represent those groups without whose support the organization will cease to exist. Friedman and Miles (2006) designed a chronological table with all the recommended definitions for the term “stakeholders”. From all the seventy-five definitions identified, the most well-known remains the one from Freeman (1984), which claims that the stakeholders represent any group or individual who can influence or can be influenced by the achievement of the objectives an organization holds.

With reference to stakeholders' theory, this was developed and discussed by numerous authors, in different ways, usually with contradicting arguments. Goodpaster (1991) identifies at the center of the theory a paradox of the stakeholders. Meznar, Chrisman and Carroll (1991) include stakeholders' management in the business strategy, embracing a utilitarian ethic to *their* defense. Boatright (1994) alleges that one can't justify or motivate the special nature of the stakeholders (Freeman, 1994). As a response, Freeman (1994) disapproves of the separation theory and supports a pragmatic approach of the way the individuals and institutions can create and exchange values.

Regarding the definitions of the stakeholders, these rely on the nature of their connection with the organization, focusing on the main element that unites them. Alkhafaji (1989) and Langtry (1994) concentrate their definitions on the organization's responsibility towards the stakeholders. Schlossberger (1994), Donaldson and Preston (1995) and Kochan and Rubinstein (2000) discuss about the groups that hold contracts and expose themselves to risks. Carroll (1979), Miller and Lewis (1991), and Argandona (1998) bring about the stakeholders' interests regarding the organization, be them either economic or social, so that

the organization itself to be concerned about their requests (Argandona, 1998). Carroll (1979), Hill and Jones (1992) and Mitchell, Agle and Wood (1997) emphasize the rightful claims on the company based on the transactional relationship between the organization and the stakeholders. Nonetheless, Mahoney (1994) indicates the moral claims of the stakeholders, which are higher when it comes to wealth. Wicks et al., (1994) highlight the value creation and the common meaning. While different and disputed, there is however a clear connection between all these definitions, between whom the stakeholders really are and what are their direct or indirect interest. We can thus conclude that the stakeholders are those individuals or groups of individuals, that hold an economic, psychological or social interest, be it either direct or indirect in an organization, aiming and satisfying some of their needs by the means of the organizations, which in return takes the responsibility for the stakeholders and the community.

There are different classifications of the stakeholders (Freeman, 1984; Donaldson and Preston, 1995), but the most prevalent is the one that considers groups of individuals that have a distinct relationship with the organizations (Friedman and Miles, 2006). The most frequent groups of stakeholders, that need to be considered are: shareholders, customers, suppliers and distributors, employees and local communities. As stated by Friedman and Miles (2006), there are other groups and individuals that can be considered as stakeholders: media, the extended public, business partners, future generations, past generations, academia, competition, NGOs, commercial associations, unions, financiers, the government. All the individuals or group of individuals can be considered stakeholders, however, as their interests are not usually identical, and the resources that an organization can grant for the satisfying of their needs are limited, there must be a ranking based on their importance.

Based on the purpose of classifying stakeholders in different groups, we reached the following key questions:

- Who are the university's stakeholders?
- Which are the efficient clusters for the classification of the university's stakeholders depending on their field of interest?
- Which are the stakeholders that hold the highest importance for the university?

3. Research methodology

In the current study the authors are discussing the sustainable development in higher education institutions based on the model recommended by Findler et al. (2018) in his paper, which includes an institutional framework comprising of education, research, outreach, campus operations, campus experience and higher education institution, and its direct and indirect impact in areas such as economics, social challenges, environment, policy drafting, culture and demographics. Starting from this model (Figure no. 1) and after reviewing the literature in the field, the authors have identified four elements based on which the sustainability degree of a university can be measured: education, research, involvement in the community, and campus/environment. For the purpose of this study, the authors have combined the element "outreach" and "higher education intuition" and the elements "campus operations" and "campus experience" in order to achieve a more concise framework for the research undertaken. The authors then proceeded to selecting the components with a significant impact on the elements developed, that better suit the universities in Romania.

One criterion in selecting these components was their frequency in other measurement scales for sustainability in the literature reviewed. The responders of the studies were selected from the university's stakeholders. In the authors' vision, the students, alumni and academia are the most important stakeholders of a university, as they have the most influence on the vectors analyzed in the questionnaire, vectors which, on one hand support the sustainable university, and on the other hand contribute to the development of strong academic branding.

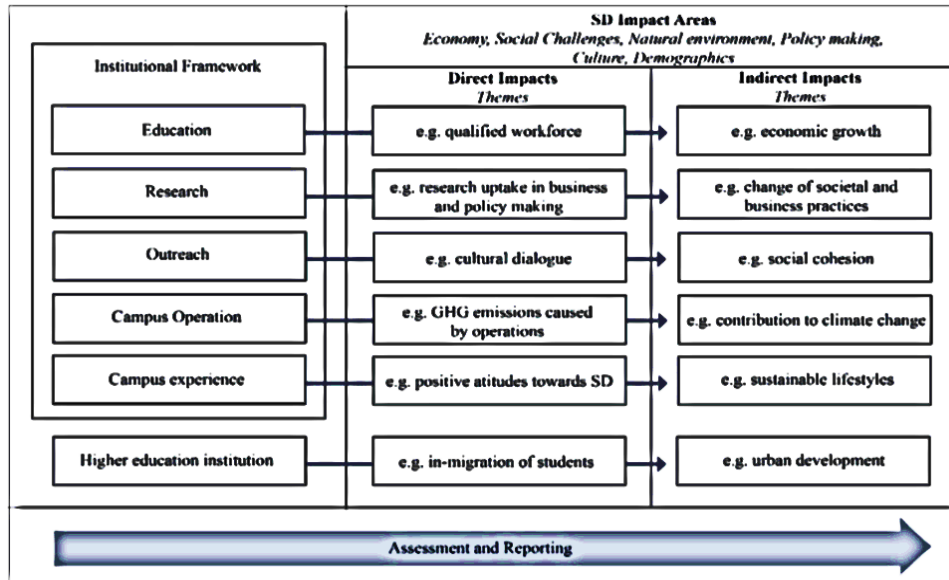


Figure no. 1: Findler's Model

Source: Findler et al., 2018, p.11

In order to identify the university's stakeholders, the authors reviewed the literature in the field. There are numerous classifications for stakeholders (Freeman, 1984; Donaldson and Preston, 1998), however, the most common way to classify them is by taking into consideration the groups of individuals that have a distinct relationship with the organization (Friedman and Miles, 2006). In the current paper, we will refer to the group of stakeholders recommended by Slaba (2015). He presents the group of stakeholders based on their importance (Slaba, 2015): alumni, communities, competition, students, donors, employees, faculties, government authorities, high schools, local authorities, the management, the marketing department, the media, the Ministry of Education, parents, and students. Three main criteria were considered by the authors in classifying the stakeholders in the academic environment:

- the way the stakeholders collaborate with the university;
- how important their interest is for the university;
- the university's orientation.

Thus, at the forefront of the way the university manages the relationship with the different stakeholders, the major interest of the higher education institution was placed. What is

fundamental in the stakeholders-university relationship is the mutual connection that is created and develops in an ethical way. Normally, the university should hold a common, possibly even greater, interest than the business companies in how its relationship with the stakeholders is managed. While businesses rely, primarily, on monetary exchanges, universities seldom call for support (sponsorships, etc.) from its stakeholders without having a monetary consideration. Of course, the stakeholders in question (for example from the business environment or the local community) receive as employees graduates from that university, without directly paying for their tuition. The conclusion that arises is that there is a need for an ethical reciprocal relationship between the university and its stakeholders (Grigoruț et al., 2011).

The undertaken research consisted of two main categories of investigations. The first research consisted of a quantitative investigation, carried out as a survey, using the offline and online interview, using the structured questionnaire as an instrument. The subjects were two main stakeholders' categories, with important active competencies and with a strategic importance for the university (as referred in Table no. 1): students (326 valid answers) and alumni (representatives from the business sector that are part of the University's Alumni Association) (303 valid answers). The authors applied the same questionnaire to both stakeholders' categories (students and alumni) and used a Likert scale with five steps; the respondents were asked to evaluate 29 questions regarding the universities and its activity, which were grouped according to the previously four recommend factors by the authors. The validity of the questionnaire was prior tested on 107 respondents (students and alumni) with the purpose of calculating the Cronbach Alpha coefficient. The coefficient was measured for the four elements (education, research, involvement in the community and environment/campus) that were used in the questionnaire. Following the research, out of the 36 questions of the initial questionnaire, seven were dismissed (they lacked the needed consistency), having in the end 29 questions. The Cronbach Alpha coefficient was measured for all the four elements used in the questionnaire. The meaning of each element is described below:

The education element refers to the way the teaching process is carried out in the university (based on the curricula developed for the different study programs, on the practical examples from the lectures, and on the subjects of the theses prepared by the students at the end of their studies) and how this fulfills the conceptualization and operationalization of a sustainable university. The research element concerns the extent to which the scientific research plans contribute to the sustainable university field. The involvement in the community element relates to the mutual connection that needs to be conducted in multiple practical ways between the university and the labor market. The involvement in the community also implies that the labor market needs to take responsibility to support the teaching and research processes, through coherent, substantial and periodical actions. This involvement occurs as mutual social responsibility between the two partners. The environment/ campus element consists of the actual activities that lead to a change of mentalities among the students, academia and staff on how they manage the existing resources, how they protect the environment, in order to create a working and living environment as pleasant as possible for the parties concerned.

The second research is a qualitative research among the academia with a vast academic and management research from the Universitaria Consortium, that attended an important international conference organized for over a decade by one of the faculties of the Bucharest University of Economic Studies – International Conference of Business Excellence – ICBE,

and among academia from the German-Romanian MBA for “Entrepreneurial Management” certified FIBAA, which operated in the same university. The authors received answers from nine faculty members from Romania, with whom face to face interviews were conducted, and 12 faculty members from abroad (USA, Germany, France, Luxemburg and Switzerland), who answered the research online. The research was conducted as an in-depth interview using a conversation guide (Cătoi, 2009). The current research strived to improve the information available in the literature in the field regarding the factors that define a sustainable university. The following hypotheses were drafted for this qualitative research:

H1 – the interviewees have, mainly, a correct understanding of the sustainable development concept in a university, that represent a long-term holistic vision of the evolution of the higher education institution.

H2 – the operationalization of the sustainable development concept in a university is very complex (Findler et al., 2019); there is a consensus regarding the vectors that define the sustainable development of the institution;

H3 – the interviewees have mentioned among the vectors of the sustainable development concept in a university at least the following: the teaching process/ education; research; the ecological behavior around the campus; the principles of social responsibility when dealing with stakeholders (Dabija et al., 2017);

H4 – the university’s sustainable development contributes directly to the consolidation of the university’s brand (Too and Bajracharya, 2015).

4. Research findings

4.1. Factor analysis applied on the quantitative research among stakeholders – students

After collecting, coding and verifying the answers collected by means of the questionnaires, these were analyzed using the SPSS Software. The data was tested for internal consistency, correctness and reliability. A factor analysis was carried out with the purpose of reducing the data’s complexity, to identify possible inferential factors, connected to the measured variables, and with the purpose of measuring the correlations between the items and the estimated components (Cătoi, 2009; Pop and Pelău, 2017).

In order to apply the factor analysis, the Cronbach Alpha coefficient was firstly calculated for each vector, in order to determine the internal consistency of the items, and to demonstrate the connection between the group of items that measure the same vector. Afterwards, the Kaiser-Meyer-Olkin measurement for sample suitability and Bartlett’s Test of Sphericity were calculated, which tests for the null hypothesis according to which the correlation matrix is the identity matrix. Lastly, the Eigenvalue was listed for the linear factors before extracting them, as well as the total variance percentage for each factor. The table also includes a section for the factors that we should consider in the future. The results of the analysis are presented in table no. 1 (students) and table no. 2 (alumni). As a result of the analysis, based on the four initial vectors, there are four main factors, and another two that will be call sub-factors.

Table no. 1: Analysis results – students

Vectors	Items	Cronbach's Alpha > 0.7	Kaiser-Meyer-Olkin > 0.5	Bartlett's test of sphericity		Eigen-value > 1	% of Variance	# of factors
				Approx. χ^2	Sig. $p < 0.01$			
Education	7	0.846	0.845	841.032	0.000	3.677	52.533	1
Research	6	0.772	0.791	468.493	0.000	2.823	47.054	1
Involvement	8	0.767	0.795	531.679	0.000	3.379	38.487	2
						1.132	14.146	
Campus/Environment	8	0.746	0.781	483.904	0.000	2.898	36.219	2
						1.105	13.818	

From here onward the results of the factor analysis will be presented. Appendix includes data gathered from the components' matrix for the vectors that have only one factor and from the rotated component matrix for the vectors that have more than one factor, because this matrix represents the loadings of each item in the factors that need to be kept after the rotations. The components' matrix consists of the correlations for each item and the measured factors. As we are talking about correlations, the values range from -1 to +1, where the values closer to 1 represent strong correlations. Rotated component matrix presents the same information as the components' matrix, however after the rotation. The extraction method is the Principal Component Analysis, and the rotation method is the Varimax with Kaiser Normalization.

It is important to mention that from the following matrixes the loadings of the factors lower than 0.4 were not displayed, as the removal of these was asked for, and secondly, the items are listed based on their factors' loadings, as they were sorted based on size. Also, the four different numbers from 1 to 4 represent the initial vectors, and the last two vectors also include the two sub-vectors resulted after the factorial analysis.

4.2. Factor analysis applied on the quantitative research among stakeholders – alumni

The first and second vector, that is education and research, both have one factor, named from now on education and research respectively, which means that all the items listed are measuring exactly those vectors. The data for the two vectors was collected from the components' matrix, for each of them, the values representing the correlations of the items with the vectors. (Table no. 2)

Table no. 2: Analysis results – alumni

Factors	Items	Cronbach's Alpha > 0.7	Kaiser-Meyer-Olkin > 0.5	Bartlett's test of sphericity		Eigen-value > 1	% of Variance	# of factors
				Approx. χ^2	Sig. $p < 0.01$			
Education	7	0.872	0.818	1041.638	0.000	4.013	57.329	1
Research	6	0.799	0.810	518.172	0.000	3.017	50.275	1
Involvement	8	0.838	0.844	835.816	0.000	3.825	47.810	2
						1.063	13.281	
Campus/Environment	8	0.760	0.779	524.178	0.000	3.021	37.759	2
						1.161	14.519	

The data for the third and fourth vector were extracted from the rotated component matrix, as the analysis for each vector's components extracted two factors for each, that the authors wanted to present after the rotation. The third vector is called mutual social responsibility and is measured by eight items, that are divided in two sub-factors. As presented, the first sub-factor is measured by five items, whereas the second by two. The first factor will be referred as the university's social responsibility for the business environment, and the second factor as the business environment's responsibility for the university. Both sub-factors together measure the mutual social responsibility. The fourth factor is called campus/ environment and it is measured by eight items, which likewise are divided in two sub-factors. The first sub-factor is measured by five items, and the second by three items. The first sub-factor is called environment protection, and the second one friendly environment. Together these two sub-factors form the vector campus/ environment.

As a conclusion, the instrument used is trustworthy, reliable and correct, and it measures the four initial vectors the authors stated. Also, the four vectors, education, research, mutual social responsibility and campus/ environment, were validated with the help of factor analysis, and two of them were divided in other two sub-vectors, while the items allocated for these measured different aspects of the mutual social responsibility and of the campus/ environment.

4.3. Results of the qualitative research

The qualitative research was undertaken between January and March 2019. Its objectives were, mainly, the following (Too and Bajracharya, 2015):

- determining whether the sustainable development concept is understood in an economics research;
- identifying the main vectors that contribute to promoting a sustainable university;
- identifying the connection between the university's sustainable development and the promotion of a strong brand for the institution.

The professional, teaching and managing experience of the interviewees determined clear, accurate and detailed answers for the topics discussed. For clarifying the sustainable development concept in a university, most of the respondents claimed the necessity of a long-term strategic vision regarding the present and the future of the higher education institution, not only when it comes to university management, but also among its main stakeholders' categories. The vision needs to be put into practice through consistent programs, that are related to the main objective. The foreign respondents have underlined the need for a quality management system accreditation, granted by a specialized European authority. This responsibility needs to be embraced by all the decision makers from the academic environment. Enforcing and keeping high quality standards in education and research, but also in the working and study environment is needed. A special place in the answers was taken by the need to change the mentality regarding the university's resource allocation (human, material and financial ones). Thus, the H1 hypothesis was confirmed. Regarding the vectors that operationalize the sustainable development of the university, the answers generated eleven of them. A third of the respondents highlighted the environment's protection as the first group of vectors that define the university's sustainability. Based on this, we can say that there isn't a consensus regarding the vectors that define the sustainable university and thus the H2 hypothesis was invalidated. Most of the respondents have included among the vectors that

define the sustainable development of the university the following: the educational process; the constant and qualitative research; the mutual involvement of the university and of its stakeholders in long term, and not only periodical, social responsibility actions; the ecologic behavior in the campus. A lack of voluntary involvement of the academia was noticed when talking about activities that would promote the sustainable behavior in the campus. Following the consensus of the respondents regarding the main vectors of sustainability, the H3 hypothesis was validated. The connection between the sustainable development of the university and its brand was widely debated by the respondents. Most of the interviewees had a good understanding of the university brand concept, based on a competitive advantage, reputation and positive image. Most of the respondents highlighted the need of a mutual commitment among the stakeholders from the labor market, the community, and the university's management, in order to capitalize, together, on the university's brand. Thus, as noticed by the respondents, contributed directly to enabling a sustainable academic environment. As a result, the H4 hypothesis was confirmed.

Conclusions

The paper concentrated to bring contributions to the development of the stakeholders' theory by localizing the research in the academic environment. In this specific area the economic reasoning should leave room for the stakeholders' interest in the educational and research process for the better good of not only the business environment, but of the society in general, for the long term. The characteristic of the academic environment could also influence the behavioural theory, through an attitude change of the beneficiaries regarding the academic output. The quantitative research processed via the factor analysis leads to the conclusion that the university's main stakeholders' groups (students and alumni) agree on the four vectors that define, in the authors' opinion, the university's sustainable development. The qualitative research facilitated a better understanding of the actions needed for sustainable development in the academic environment.

The undertaken study also enables some practical conclusions, for the management's purpose. The need of a long term, system way of thinking that also includes the sustainable orientation of the academic institution, implemented through the strategic management plan and in the current management activity, arises. This initiative needs to be promoted also through the educational and research process, but also by creating a working and living climate aimed at protecting the environment for the students, academia, researchers and staff. The university curricula should advance, through some lectures, the issue of developing a "sustainability culture", in order to stimulate the volunteering among the community and the appreciation at their true value of the human, material and financial resources of the university. The university should promote a change of mentality in how it deals with its stakeholders in order to establish mutual responsibility. The labor market shouldn't just be the beneficiary of the academic process, but also a responsible partner in supporting this effort. The involvement in the doctoral research, for example, should not be limited to the business environment or different government departments suggesting themes, but also to the support – including financial one – granted to this research process. The university's sustainability is also put into practice through lifelong learning programs. These programs need to evolve from punctual activities into a long-term coherent program, that helps the community's members, that need a refresh of their knowledge.

The limitations of this research arise from the circumstances where it was undertaken – only one university – although it being representative for the Romanian economic academic environment. Another limitation of the study is the exploration of the perception regarding the sustainable university concept only among three categories of stakeholders, considered the most important by the authors.

Future research regarding the topic could be represented by replicating the current study among other groups of stakeholders, such as: pupils, parents, local and government bodies, donors and financing institution – including “business angels”. Naturally, an important step forwards in the theoretical development and practical approach of the concept of sustainable university would be the real-life implementation of the stakeholders’ opinion in this matter. Essentially, a sustainable university requires a change of mentality of all its stakeholders for these to act as a team, based on consensus.

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Appendix – Components' Matrix

Items	Factors	
	Students	Alumni
The curricula is modern and connected with the future requirements	0.835	0.893
The curricula answer the requirements from the labor market	0.779	0.807
The technologies used in the university are modern	0.751	0.767
The lectures address topics related to modern reality	0.746	0.783
The faculty offers counseling and the possibility to find a job after graduating	0.688	0.724
The faculty offers me internships regularly	0.672	0.688
The faculty teaches me the needed knowledge to get a job in the studied field	0.572	0.606
The faculty has a modern research facility	0.228	0.722
The research undertaken by the faculty changes its field	0.286	0.827
The faculty/ university undertakes actions that support start-ups	0.251	0.713
The faculty organizes regularly scientific conferences that deals with sustainability in the academic environment	0.221	0.632
The university undertakes research in the field of university sustainability	0.250	0.719
The research undertaken by the university answers the requirements of the business environment	0.215	0.622
The faculty collaborates frequently with the companies in its field	0.775	0.832
The faculty offers me company visits during the studies	0.745	0.762
The faculty has partnerships with the companies in the field	0.632	0.686
The university has many students NGOs	0.621	0.627
The university supports the students' involvement in the HEI's management	0.544	0.683
The faculty/ university organizes regularly job fairs	0.538	0.521
Companies regularly recruit students from the university	0.875	0.891
The companies frequently organize conferences/ presentations/ case studies in the university	0.565	0.660
The university uses a pollution reduction system	0.831	0.854
The university has a system for selective waste collection	0.754	0.801
Universities undertakes actions for reducing energy consumption	0.652	0.612
The university's buildings are adapted to the environments' protection requirements	0.620	0.684
The university carries out awareness campaigns regarding the environment and the students volunteer themselves	0.498	0.529
The university has many accommodations	0.815	0.764
The buildings in the university have greenery, sport facilities, and leisure zones	0.580	0.679
The university's buildings are adapted for the disabled ones	0.563	0.543