ADVANCING A NEW ERA IN HIGHER EDUCATION MANAGEMENT: A STAKEHOLDER OVERVIEW ANALYSIS FROM EUROPEAN AND NON COUNTRIES

Ina SEJDINI
Lecturer, Professor, University of Elbasan
ina.sejdini@uniel.edu.al

Imelda SEJDINI
Associate Professor, University of Elbasan
imelda.sejdini@uniel.edu.al

Ardita TODRI
Associate Professor, University of Elbasan
ardita.todri@uniel.edu.al

Petraq PAPAJORGJI
Professor, Proinfinit Consulting Tirana
petraq@gmail.com

Christos Ap. LADIAS
Professor, Regional Science Inquiry Journal, Greece
ladias@rsijournal.eu

Filip RUXHO
Associate Professor, University "Haxhi Zeka"
filipos.ruxho@unhz.eu
(Corresponding Author)

Abstract

This paper aims to explore how higher education institutions' (HEI) top managers, students, professors, assistant professors, education experts, and administrative staff evaluate the Albanian, Algerian, Polish, Turkish, and Spanish institutional openness toward the responsibility and sustainability approaches and analyze how it can be improved. In this research study participated 406 individuals out of 680 that were contacted. The study participants' data were collected using an online questionnaire. The questionnaire uses four pillars concerning institutions' responsible and sustainable approaches, each containing eight elements. These pillars are: Culture, Resources, and Infrastructure in higher education institutions; Research and Responsible Education; Solidarization for Sustainable Development and Social Management and Knowledge. We start the research with a hypothesis-free approach, and in the following, we handle a hypothesis-based approach. The study shows that the Spanish HEI exhibit higher engagement in terms of responsible and sustainable approaches followed by Turkish, Albanian, Algerian and Polish ones. Further, our analysis suggests that improving Culture, Resources, and Infrastructure toward responsible and sustainable approaches is strongly correlated with the efficient management of Research and Responsible Education, Solidarization for Sustainable Development and Social Management and Knowledge in these institutions. The study provides some practical implications for HEI stakeholders and line institutions.

Keywords: higher education institutions management, responsible management, sustainable management, countries mindsets

JEL classification: Q01, Q28, Q55

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1. Introduction

Higher education institutions (HEI) assume the primary responsibilities in human capital formation, knowledge creation, and innovation, thus contributing to the economic, social, cultural, and environmental development of communities, regions, countries, and even supra-

national areas. Thus, HEI continuously compete with each other at the national and international levels. Correspondingly, since their first appearance in the early 2000s, the global HEI rankings have fostered competition by seriously impacting their working culture and the enhancement of national policies (Sarrico and Godonoga 2021). The IREG observatory inventory reports thirty-nine HEI rankings, from which fourteen are global HEI rankings, seven are regional rankings, sixteen are business school rankings, and the rest are specialized rankings by different institutional characteristics and fields of study (IREG 2019).

In the middle of the debate during September 2023 concerning the QS academic ranking of world higher education institutions for the year 2024, it was introduced for the first time the sustainability element (QS World University Rankings 2024). Furthermore, the 20th edition of the QS World University Rankings features 1,500 institutions across 104 locations that considers employability and sustainability. HEI ranking generally considers their Nobel Laureates, Fields Medalists, Highly Cited Researchers, or papers published in Nature or Science indexed by Science Citation Index-Expanded (SCIE) and Social Science Citation Index (SSCI). However, this year demonstrates the largest-ever methodological enhancement implementation, introducing three new metrics in the HEI's rankings: sustainability, employment outcomes, and international research network. In this new context, the worldwide top 10 HEI elected are Massachusetts Institute of Technology (MIT), University of Cambridge, University of Oxford, Harvard University, Stanford University, Imperial College London, ETH Zurich, National University of Singapore (NUS), United Kingdom (UCL) and University of California, Berkeley (UCB).

Meanwhile, considering environmental and social sustainability QS World Ranking, in its first edition, used a methodology that comprises indicators designed to measure an institution's ability to tackle the world's most significant environmental, social, and governance (ESG) challenges (QS Universities Sustainability Rankings 2023). The new methodology was applied to 700 HEI. These indicators are split into environmental sustainability measures – including sustainable institutions, sustainable education, and sustainable research – and social impact measures, which include equality, knowledge exchange, educational impact, employability and opportunities, and quality of life. The worldwide top 10 HEI ranked according to these environmental and social sustainability measures are the University of California, Berkeley (UCB) also part of the previous ranking metrics and in addition the University of Toronto, the University of British Columbia, the University of Edinburgh, the University of New South Wales (UNSW Sydney), the University of Sydney, the University of Tokyo, University of Pennsylvania, Yale University and the University of Auckland.

While referring to Greenmetric ranking in Europe (Greenmetric by Region 2022) that takes into account their setting and infrastructure, energy and climate change, waste and water, transportation, and education, the top 10 ranked HEI are Wageningen University & Research, Nottingham Trent University, University of Nottingham, University of Groningen, Umwelt-Campus Birkenfeld (Trier University of Applied Sciences), University College Cork, University of Bremen, University of Bologna, Leiden University and University of Southern Denmark. Despite their value and impact, the global HEI rankings often have been criticized regarding various aspects, such as the nature of indicators used, their weightings, and the limited reliability and quality of data (Hazelkorn 2013; van Vught and Ziegele 2013). However, in part of these rankings or not, HEI produce and promote values that correspondingly have essential impacts on society and the nation's economic, environmental, and social development. The latter is so true that referring to iconstylealbania account (Iconstyle_al 2023) the best countries to live in 2023 considering the well-developed higher education system are: 1. Sweden; 2. Denmark; 3. Canada; 4. Switzerland; 5. Norway; 6. Finland; 7. Germany; 8. Netherlands, and 9. Australia.

In this context, it is worth investigating how HEI act regarding sustainable development and social responsibility matters. HEI are socially responsible (SR) when they positively impact society through higher education, research, and the transfer of knowledge and technology, as well as education for sustainability (Sepetis 2024; Meseguer-Sánchez et al. 2020). From now on, for future leaders and policymakers, HEI need to integrate social responsibility principles in teaching and research activities into their management and community engagement activities (Ralph and Stubbs 2014; Garde Sánchez, Rodríguez

Bolívar, and López-Hernández 2013). Avant-garde HEI approaches are being developed on these two principles today. Moreover, this is turning into a challenge for them to absorb students and funds against a healthier competition that produces sustainable growth.

Several authors primarily deal with the HEI's responsibility and sustainability issues (i.e:

Godonoga and Sporn 2023; Kholiavko et al. 2021; Nardo, Codreanu, and Roberto 2021; O'Brien et al. 2021; Sarrico and Godonoga 2021; Compagnucci and Spigarelli 2020; Meseguer-Sánchez et al. 2020; Bokhari 2017; Ramos-Monge, Llinas-Audet, and Barrena-Martinez 2017) to name a few.

However, the overview analysis of HEI stakeholders on responsibility and sustainability

in various countries is still missing. Thus, in this study, we explore how HEI top managers, students, professors, assistant professors, education experts, and administrative staff evaluate the institutional openness toward the responsibility and sustainability approaches in Albania, Algeria, Poland, Turkey, and Spain and analyze how it can be improved. This study can help these institutions prepare to make further progress, reach the established goals, fill the literature gap, and provide recommendations for implications and future research in the field.

2. Literature review

The current challenges (financial and COVID-19 pandemic crisis, global warming, the

technological revolution, etc.) have re-conceptualized HEI's missions. HEI build human capital, strengthen research and innovation, and boost social, economic, cultural, and environmental development (Sarrico and Godonoga 2021; Farnell et al. 2020; Vasilescu et al. 2010).

According to Sarrico and Godonoga (2021) study, the HEI systems are increasingly diverse and include institutions providing short-cycle tertiary education, which is often occupationally oriented and with a significant component of work-based learning, typical of developing countries. In addition, doctoral-level educations, oversized comprehensive HEI with broad missions, and small specialized institutions with narrower missions; public and private institutions are mainly established in developed countries.

Various countries are also exploring public-private partnerships (PPP) to solve

educational development challenges (Sajida and Kusumasari 2023). In this context, HEI tend to adopt a self-evaluation process to improve their outputs. Thus, in recent years, they have shifted from traditional teaching and developing research considering a Third Mission (TM), entitled "a contribution to society" (Compagnucci and Spigarelli 2020; Urdari, Farcas, and Tiron-Tudor 2017; Hazelkorn 2016). The TM activities constitute the engines that contribute to the social, economic, and cultural development of the regions in which they operate by transferring knowledge and technologies to industry and society to a large extent (Agasisti, Barra, and Zotti 2019). In the value creation process, HEI must manage intangible assets and corporate values. Thereby, in the education sector, institutions need to link ethics and responsibility to quality and sustainability in their mission (Kouatli 2019; Fedyunin et al. 2018; Leal Filho et al. 2018; Largacha-Martínez, Pinzón, and Velásquez 2015).

The HEI responsibility, or "social responsibility" and their "sustainability approach"

constitute the skeletal in the globalized world (Larr_an Jorge and Andrades Peña 2017; Vasilescu et al. 2010). Thus, Bokhari's (2017) study states that the HEI definition of social responsibility encompasses economic, legal, ethical, and philanthropic responsibility. In addition, HEI coordinate educational, cognitive, labor, and environmental activities to promote sustainable human development (Lo et al. 2017). Vasilescu et al.'s (2010) research goes deeper into the context. It defines responsible HEI as those who "are engaged in volunteering and encouraging students and the academic staff to provide social services to their local community or to promote ecological, environmental commitment for local and global sustainable development". Moreover, the Giuffré and Ratto (2014) study considers those HEI responsible when producing educational services and transferring knowledge regarding environment and social engagement through management, teaching, research, and extension. All these initiatives together require engagement toward the establishment of a strategic plan. At the same time, strategic planning allows HEI to benefit from the

opportunities, strategically using resources and helping future plans (Nardo, Codreanu, and Roberto 2021; Hunt et al. 1997).

Thereby, academic authorities and public institutions must design a framework that orients HEI in the use of strategic plans to comply with responsibility and sustainability dimensions, considering that 1) within the educational activity, HEI train highly qualified personnel for the national economy; 2) within the extracurricular activities, they develop new green consciousness of the young generation that is crucial for further sustainable development of the national economy; 3) within the research activity, they develop innovative regenerative technologies and environmentally friendly technologies; 4) their cooperation with businesses (industries), government, public (civil society) can create a foundation for sustainable development of the national economy (Qin et al. 2023; Kholiavko et al. 2021). Thus, strategic plans can be developed by considering such pillars as infrastructure, research and education, sustainable development, social management, and knowledge.

The criteria for judging a socially and environmentally responsible infrastructure are inclusive and sustainable industrialization; modernization of study and research environments; improvement of HEI facilities; investments in research equipment; development of teaching; research, and service facilities; dynamic management of technological and IT infrastructures, etc. (Qin et al. 2023; Gupta, Mitra, and Garg 2021; Kholiavko et al. 2021; Nardo, Codreanu, and Roberto 2021).

A responsible research and education system, must include elements such as the right to students with disabilities; reward and merit-based policies; access to university training; qualitative and quantitative increase in scientific productivity; research spread; promotion and support of scientific research; protection and enhancement of intellectual property (Godonoga and Sporn 2023; Todri et al. 2020; Bastos et al. 2019).

Meanwhile, factors affecting the solidarity to sustainable development are gender balance, gender policies, equal remuneration for women and men, equal career opportunities, sustainability of the educational offer and sustainability of the training offer (Shah, Khuhro, and Bakari 2021; Mazon et al. 2020; Montenegro de Lima et al. 2020; Guthrie, Ball, and Farneti 2010; Marcuccio and Steccolini 2005).

Regarding the fourth pillar "Social Management and Knowledge" the following elements are considered: the use of innovative technologies in teaching; transfer of skills, knowledge and technology to the community; innovation of the training offer; social impact of training; social impact of research (Quarchioni, Paternostro, and Trovarelli 2022; Kholiavko et al. 2021; Archer-Kuhn et al. 2020; Morley and Clarke 2020; Spaapen and Sivertsen 2020; Terán-Bustamante and Torres-Vargas 2020; Ayala-Rodríguez et al. 2019; Clark et al. 2016; Taysum 2014; Ceulemans and De Prins 2010).

Several authors have dealt with the concept of HEI responsibility and sustainability (Godonoga and Sporn 2023; Kholiavko et al. 2021; Compagnucci and Spigarelli 2020; Meseguer-Sánchez et al. 2020; Nardo, Codreanu, and Roberto 2021; O'Brien et al. 2021; Sarrico and Godonoga 2021; Bokhari 2017; Ramos-Monge, Llinas-Audet, and Barrena-Martinez 2017), but however, there has yet to be any research considering the view of HEI stakeholders on responsibility and sustainability in Albania, Algeria, Poland, Turkey, and Spain.

Thus, in this research, we explore how HEI top managers, students, professors, assistant professors, education experts, and administrative staff evaluate the institutional openness toward the responsibility and sustainability approach. This study can help these institutions prepare to make further progress, reach the established goals, fill the literature gap, and provide recommendations for implications and future research in the field.

3. Methodology

3.1. The methodological research design

This research study uses an online questionnaire to collect data concerning responsible and sustainable approaches in HEI. The heart of the questionnaire is defining four pillars concerning HEI's responsible and sustainable approaches. Each of the pillars contains eight elements. These pillars are: 1. Culture, Resources, and Infrastructure (CRI) in HEI; 2.

Research and Responsible Education (RRE); 3. Solidarization for Sustainable Development (SSD) and 4. Social Management and Knowledge (SMK). We start the research with a hypothesis-free approach and use a hypothesis-based approach in the following.

Thus, we assess whether HEI Research and Responsible Education (RRE), Solidarization for Sustainable Development (SSD), and Social Management and Knowledge (SMK) approaches impact their Culture, Resources, and Infrastructure (CRI) toward responsibility and sustainability. Based on the explanations provided, the research study hypothesis is stated as follows:

$$\text{Ho: } CRI = \beta_0 + \beta_1 * RRE + \beta_2 * SSD + \beta_3 * SMK + \mu_t. \quad (1)$$

3.2. Participants and data

In this research study participated 406 individuals out of 680 were contacted. Participants' nationalities (in Table 1) in percentage are Algerian (16%), Spanish (21.18%), Turkish (19.95%), Polish (20.19%), and Albanian (22.66%). Most study participants are involved in public universities (51.5%), and the rest are in private (48.5%) universities. The participants of the study are university top managers (10.1%), education experts (7.9%), professors (25.4%), assistant professors (17%), administrative staff (17.7%) and university students (21.9%). All the participants in this study are involved in the university's daily life.

The university students mainly pertain to bachelor's (41.6%), professional (38.2%), and scientific (20.2%) master's programs. Meanwhile, most administrative staff in the study hold a scientific master's degree (71.02%), and the rest hold a bachelor's degree (28.98%). Also, the assistant professors involved in this study hold a scientific master's degree. Most education experts in this study instead hold a Ph.D degree (68.75%), and the rest are associate professors (31.25%).

While professors have a scientific master's degree (15.5%) or a Ph.D degree (29.13%), have the associate professor title (43.7%), and the rest of 21.67 % possess a full professor academic title.

Table 1. Questionnaire participant`s data

		HEI Environment		Age					
The demographic information of the participants	**Total**	**Public**	**Private**	**18-25**	**26-34**	**35-44**	**45-54**	**55-64**	**65**
Base size	406	209	197	79	97	83	54	49	44
Albanian	92	40	52	13	25	22	12	11	9
Polish	82	45	37	17	19	16	9	10	11
Spanish	86	47	39	19	21	17	10	8	11
Turkish	81	40	41	15	19	18	11	9	9
Algerian	65	33	32	15	13	10	12	11	4

Source: Online Questionnaire

3.3. Research method

The online questionnaire (in Table 2) to explore opinions of students, top managers, education experts, professors, assistant professors, academic staff, and administrative staff perceptions concerning responsible and sustainable approaches in HEI used their official e-mail addresses. The questionnaire evaluation uses the Likert scale from 1 (one) to 5 (five), meaning: 1= Strongly disagree (Sa); 2=Disagree (D); 3 = Undecided (U); 4=Agree (A) and 5= Strongly agree (Sa).

Then, considering the Likert scale data distribution, we implement a non-parametric estimation method to analyze whether Research and Responsible Education (RRE), Solidarization for Sustainable Development (SSD), and Social Management and Knowledge

(SMK) impact the HEI Culture, Resources and Infrastructure (CRI) toward responsible and sustainable approaches.

The SPSS 20 (Statistical Package for Social Sciences Inc., Chicago, IL) statistical program is used to analyze the data and further assess the Research and Responsible Education (RRE), Solidarization for Sustainable Development (SSD), and Social Management and Knowledge (SMK) impact on HEI Culture, Resources and Infrastructure (CRI).

The data collected per each pillar element (CRI/RRE/SSD and SMK from 1-8) are

evaluated using average ratings. Decimal values are rounded to the nearest value. This first transformation is advisable because most users of the information need help figuring out what to do with Likert Scales, such as the 5-point scale.

Table 2. Likert scale questionnaire structure

			Rating 1-5				
			Sd	D	U	A	Sa
			1	2	3	4	5
Culture, Resources and Infrastructure (CRI)	cri 1	Green engineering is finding more and more applications in the development of infrastructures of higher education establishment					
	cri 2	Energy planning resulted in a significant reduction in energy costs for higher education institution					
	cri 3	The waste management plan helped HEI to design an environmentally friendly strategy					
	cri 4	Water harvesting (rain, recycling of waste water) has reduced the institutional utility cost as well as that of construction in HEI					
	cri 5	Continuous investments in research, teaching and service equipment as well as efficient management of technological infrastructures make HEI an example in the community					
	cri 6	The HEI makes investments aimed at modernizing its study and research environments					
	cri 7	HEI creates infrastructure for students, academic staff, academic and administrative assistants with limited abilities					
	cri 8	HEI has invested in special infrastructure for community service activities					
Research and Responsible Education (RRE)	rre 1	HEI aims to increase the level of qualification in society					
	rre 2	HEI provides access to studies and research to disadvantaged social groups (involves the LGTBI community, Roma and Egyptian minorities as well as people with disabilities)					
	rre 3	HEI graduates students have high employment potential					
	rre 4	The number of foreign students in HEI has increased					
	rre 5	HEI offers courses and study programs for all ages					
	rre 6	The HEI is ready to reform to adapt to the environment in which operates, technological progress as well as market needs					
	rre 7	The HEI encourages critical thinking, dialogue, negotiation and cultural and religious tolerance in its study programs and research projects					
	rre 8	The HEI is committed to interdisciplinary education across the cultural, environmental and global spectrum					
Solidarization sustainable development (SSD)	ssd 1	The HEI develops activities that promote sustainability within the curriculum (spiritual development, equality and global ethics, environmental awareness, cooperation for the development of global environmental policies)					
	ssd 2	HEI invested in line with solidarity needs for sustainable development					
	ssd 3	The HEI develops extracurricular activities in support of the community for sustainable development					
	ssd 4	The HEI offers pilot financing projects for social enterprises					
	ssd 5	HEI implements policies based on gender equality and equal social opportunities (in terms of remuneration, research funding, etc.)					

	ssd 6	The HEI constantly conducts awareness training for teachers, administrative staff and students in the context of sustainable development
	ssd 7	The HEI provides community services, encourages students to assist students in their studies and research, and provides assistance to students with disabilities
	ssd 8	HEI promotes cooperation, conflict management and taking responsibility in a wide range of areas
Social management and knowledge (SMK)	smk 1	The HEI continuously trains students, teaching and administrative staff in innovations in digital systems in use (linked to educational and administrative logistics)
	smk 2	The HEI uses innovative and environmental friendly technologies in scientific research and not only
	smk 3	The HEI operates with a diverse portfolio of training, consultations and seminars with innovative themes on the development of community cooperation
	smk 4	HEI puts the necessary knowledge and technology at the service of the community
	smk 5	The HEI cooperates with businesses, government and civil society for the development of community projects
	smk 6	The HEI includes students and community groups in activities that take place based on interdisciplinary teaching, service and research programs addressing social and economic issues
	smk 7	The HEI publishes on its website the results of all researches (of individual and collective student staff financed by the establishment itself or by other private or public, national and international sources)
	smk 8	The HEI participates in public debates on the possibilities of developing studies for people with disabilities

4. Results and discussions

The research questionnaire was completed only by 59.7% of students, education experts, assistant professors, professors, top managers as well as administrative staff that were contacted by e-mail. Referring to these data, 60% of the elements evaluated in this questionnaire were rated with 4 (participants agree with HEI approaches) and the rest of 40% were rated with 3 (undecided related to HEI approaches).

These results show that the elements mostly rated with 4 pertain to Research and Responsible Education (RRE)-6 out of 8, Solidarization for Sustainable Development (SSD)-5 out of 8, Social Management and Knowledge (SMK)-5 out of 8, and finally Culture, Resources and Infrastructure (CRI) in HEI- 2 out of 8.

Referring to HEI Culture, Resources and Infrastructure (CRI) pillar, the only elements where the participants agree toward HEI responsible and sustainable approaches are:

CRI 5-The HEI continuous investments in research, teaching and service equipment, as well as efficient management of technological infrastructures, make them an example in the community; and CRI 6-The HEI make investments aimed at modernizing its study and research environments.

The CRI 5 is rated mainly by Spanish participants (with 5) followed by Polish participants (with 4), Turkish participants (with 3.7), Albanian participants (with 3.45) and Algerian participants (with 3).

Meanwhile, CRI 6 is mostly rated by Spanish participants (with 5), Algerian, Turkish and Albanian participants with (3.5) and Polish participants (with 1). In other words, these results mean that participants have different exigencies toward HEI Culture, Resources and Infrastructure engagement in responsible and sustainable approaches.

In this context, it is important to assess whether improving HEI Culture, Resources and Infrastructure is possible. Thus, we test whether Research and Responsible Education (RRE), Solidarization for Sustainable Development (SSD) and Social Management and Knowledge (SMK) impact the Culture, Resources and Infrastructure (CRI) in HEI at 95% confidence level:

$$CRI = \beta 0 + \beta 1 * RRE + \beta 2 * SSD + \beta 3 * SMK + \mu t. \quad (1)$$

The analysis demonstrates that RRE, SSD, SMK and CRI Likert scale data are not normally distributed as the Shapiro-Wilk and Kolmogorov-Smirnov tests (Oppong and Agbedra 2016) significance is lower than 0.05 referring to above ordinal regression variables at 95% confidence level (in Table 3).

Table 3. Ordinal regression variables tests of normality data

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
CRI	0.073	406	0.000	0.977	406	0.000
RRE	0.118	406	0.000	0.949	406	0.000
SSD	0.081	406	0.000	0.952	406	0.000
SMK	0.103	406	0.000	0.967	406	0.000

Source: Author`s calculations

In addition, through the test of parallel lines (Erkan and Yildiz 2014) the ordinal regression model significance is estimated 0.989 (higher than 0.05). It confirms that location parameters (slope coefficients) are not the same across response categories in CRI variable (in Table 4).

Table 4. Test of parallel lines

Model	2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	2138.283			
General	2073.729	64.555	93	0.989

Source: Author`s calculations

Thus, we proceed with the Generalized Linear Model (Dobson and Barnett 2018) to estimate the Research and Responsible Education (RRE), Solidarization for Sustainable Development (SSD), and Social Management and Knowledge (SMK) impact on the HEI Culture, Resources and Infrastructure (CRI) at 95% confidence level. The omnibus test (Pan and Lin 2005) demonstrates that the Generalized Linear Model used to test our hypothesis (in Table 5) fits well, as the Chi-square significance is 0.000 (lower than 0.05). Also, the test of model effects confirms the omnibus test results as the RRE, SSD, and SMK significance is 0.000 (lower than 0.05).

Table 5. Omnibus Test

Likelihood Ratio	Chi-Square	df	Sig.
	491.152	3	0.000

Source: Author`s calculations

The Generalized Linear Model parameters presented in Table 6 confirm that each study pillar impacts the improvement of HEI Culture, Resources and Infrastructure (CRI) and is statistically significant at 95% confidence level.

Table 6. Generalized linear model parameters estimation

			95% Wald Confidence Interval		Hypothesis Test			
Parameter	**B**	**Std. Error**	**Lower**	**Upper**	**Wald Chi-Square**	**df**	**Sig.**	**Exp(B)**
RRE	0.883	0.1856	0.519	1.247	22.63	1	0.000	2.418
SSD	0.925	0.1848	0.563	1.287	25.048	1	0.000	2.522
SMK	1.267	0.2228	0.831	1.704	32.352	1	0.000	3.551
(Scale)	1							

Source: Author`s calculations

Further (in Table 7), Spearman`s correlations (Hauke and Kossowski 2011) confirm that RRE (0.765), SSD (0.782), and SMK (0.805) have a moderate and statistically significant correlation with CRI.

Table 7. Spearman`s correlations

		CRI	RRE	SSD	SMK
Spearman's rho	CRI Correlation Coefficient	1	0.765	0.782	0.805
	Sig. (2-tailed)		0	0	0
	N	406	406	406	406
	RRE Correlation Coefficient	0.765	1	0.791	0.834
	Sig. (2-tailed)		0	0	0
	N	406	406	406	406
	SSD Correlation Coefficient	0.782	0.791	1	0.86
	Sig. (2-tailed)		0	0	0
	N	406	406	406	406
	SMK Correlation Coefficient	0.805	0.834	0.834	1
	Sig. (2-tailed)		0	0	0
	N	406	406	406	406

Source: Author`s calculations

5. Conclusions

This research study considered HEI top managers, students, education experts, assistant professors, professors as well as administrative staff perceptions concerning responsible and sustainable approaches implemented in private and public HEI operating in Albania, Algeria, Spain, Poland, and Turkey.

Through the questionnaire above, 58% of study participants reveal that HEI does not have a strategic plan for sustainable development and social engagement where they are involved. Above 25.6% of them declare that they do not know if HEI, where they are involved, has a strategic plan for sustainable development and social engagement; the rest of 16.4% confirm the existence of this strategic plan.

Predominantly, Albanian, Turkish, Polish, and Algerian HEI results are the ones that do not have a strategic plan for sustainable development and social engagement. Spanish HEI, instead, are reported as the most avant-garde concerning sustainable development and social engagement strategic planning. In this way, the study shows that the Spanish HEI exhibit higher engagement in terms of responsible and sustainable approaches (rated on average at 4.8), followed by Turkish (rated on average at 3.6), Albanian (rated on average at 3.4), Algerian (rated on average at 2.7) and Polish ones (rated on average at 2.5).

Further, our analysis suggests that the improvement of HEI Culture, Resources and Infrastructure toward responsible and sustainable approaches is possible through significant engagement in Research and Responsible Education (RRE), Solidarization for Sustainable Development (SSD) and Social Management and Knowledge (SMK) pillars. Statistically based, the last pillar constitutes the most critical context concerning developing Culture, Resources and Infrastructure (CRI) to improve responsible and sustainable approaches in HEI.

The study analysis route-one results confirm that for every unit of improvement in:

- Research and Responsible Education (RRE), there is a predicted increase of 0.883 in the log odds of being at a higher level of HEI Culture, Resources and Infrastructure (CRI);
- Solidarization for Sustainable Development (SSD), there is a predicted increase of 0.925 in the log odds of being at a higher level of HEI Culture, Resources and Infrastructure (CRI);
- Social Management and Knowledge (SMK), there is a predicted increase of 1.267 in the log odds of being at a higher level of HEI Culture, Resources and Infrastructure (CRI).

The study analysis route-two results demonstrate that the odds ratio indicates that the odds of being in a higher level HEI Culture, Resources and Infrastructure (CRI) toward responsible and sustainable approaches increases by a factor of:

-2.418 for every one-unit increase on Research and Responsible Education (RRE);

-2.522 for every one-unit increase on Solidarization for Sustainable Development (SSD);

-3.551 for every one-unit increase on Social Management and Knowledge (SMK).

Thus, much more should be done to improve those elements which are especially low rated in Social Management and Knowledge (SMK) pillar such as:

a. The inclusion of students and community groups in activities that take place based on interdisciplinary teaching, service and research programs addressing social and economic issues (rated in average with 3.4). Polish (rated at 2), Algerian (rated at 3), Turkish (rated at 3.2) and Albanian (rated at 3.4) study participants have been sceptical of this HEI approach.

b. The publication of the results of all research on HEI websites (such as those of professors, research groups and the one where students are involved financed by the establishment itself or by other private or public, national and international sources-rated on average at 3.41). Polish and Algerian (rated at 2), Albanian (rated at 2.49) and Turkish (rated at 3) study participants think that HEI have not been enough transparent at this point.

c. The participation of HEI in public debates on the possibilities of developing studies for people with disabilities. This element is considered emergent, especially for Polish (rated at 2), Algerian (rated at 2.5), Albanian (rated at 2.28) and Turkish study participants (rated at 2.8).

In other words, HEI should act according to the practical needs of the community; this applies to the study programs offer, the orientation of scientific research, and the taking of initiatives for the inclusion of people with disabilities in the working environment. However, to manage these challenges, HEI need to be supported even by line ministries and other central or local authorities.

Additional elements that Albanian, Turkish, Polish, and Algerian study participants think might be improved pertaining to Solidarization for Sustainable Development (SSD) pillar are those concerning HEI offer of pilot financing projects for social enterprises (rated in average at 3.4), development of extracurricular activities in support of the community for sustainable development (rated at 3.5) as well as the promotion of cooperation, conflict management and taking responsibility in a wide range of areas (rated at 3.5). Obviously, these commitments require higher institutional budgets and human capital. Thus HEI should take action immediately, starting with short and medium-term strategic planning.

Comparatively, referring to the Research and Responsible Education (RRE) pillar it is argued above the need to establish further institutional agreements or programs in foreign languages to increase international students' mobility programs and international students' involvement in HEI programs (rated at 3.3). Study participants' point of view is essential to provide access to studies and research to disadvantaged social groups (including here the LGTBI community, Roma and Egyptian minorities, as well as people with disabilities rated at 3.4). Diversity management and inclusive education platforms enable more social cooperation and sustainable development opportunities. In this regard, all HEI initiatives can be handled more efficiently by expanding their synergies through partnerships with civil society, municipalities, and business environments.

Although this paper points out some essential perceptions of HEI stakeholders and practical insights on improving their Culture, Resources and Infrastructure toward responsible and sustainable approaches, it remains under the discretion of HEI, various institutions' actions, and societal needs to make advancements and produce concrete results.

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