Scales on University Social Responsibility in university students: a scoping review

Escalas sobre Responsabilidad Social Universitaria en estudiantes universitarios: una revisión de alcance

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Abstract: University social responsibility (USR) is a concept that emphasizes that institutions meet the requirements generated by society's challenges through greater participation. In the case of university students, this implies a broader view of the professional field that involves understanding the political, social, and economic dimensions; therefore, the implementation of USR in university students is crucial in this process. The objective of this scoping review was to analyze the validation process of USR scales applied to university students. The review yielded a total of 161 results, 17 of which met the inclusion criteria. Most of the research was applied in Latin America. All studies used a Likert scale to assess USR. 13 studies performed exploratory factor analysis and all carried out internal consistency or global reliability assessments. In general, the validity and reliability of the scales presented adequate results; only one study performed test-retest. These findings show that USR plays a significant role in adopting competent and socially responsible professionals. Furthermore, it can be a key differentiator for universities in a competitive environment in which initiatives that provide opportunities for students to exercise more conscious behaviors in the collective environment are strengthened.

Keywords: University social responsibility, Validation study, Reliability, Factor analysis.

Abstract: University Social Responsibility (USR) emphasizes the need for institutions to respond to societal challenges through increased engagement. For university students, this means adopting not only a broader professional perspective but also an understanding of the political, social, and economic dimensions. Therefore, implementing USR among university students is a crucial aspect of this process. The aim of this scoping review was to analyze the validation processes of USR scales applied to university students. The review identified 161 results, 17 of which met the inclusion criteria. Most of the research was conducted in Latin America. All studies employed a Likert scale to assess USR, with 13 studies conducting an exploratory factor analysis and all performing assessments of internal consistency or overall reliability. Overall, the validity and reliability of the scales showed satisfactory results, although only one study included a test-retest analysis. These findings underscore that USR has a vital role in cultivating competent and socially responsible professionals. Additionally, it can serve as a key differentiator for universities in a competitive landscape, enhancing initiatives that provide students with opportunities to engage in more mindful and collective-oriented behaviors.

Keywords: University social responsibility, Validation Study, Reliability, Factor Analysis

1. Introduction

University Social Responsibility (USR) is considered an educational management model that seeks to bring higher education institutions closer to the reality of their environment. For this reason, this model generates a relationship between the institutional mission functions (1) and the interest groups or stakeholders of the University, that is, students, teachers, administrative staff, parents, employers, communities, among others (2). Because the training of future professionals is one of the purposes of higher education institutions, it is important to identify the meaning that students give to USR; this exercise prepares them as global citizens who are expected to contribute to society and fulfill their responsibilities (3). Nowadays, training in the knowledge of each academic program is not enough; the application of the deontological sense during the time at the University and then, in their work environments is required.

In the case of Latin American countries, and landing on the Colombian panorama, higher education institutions are influenced by the challenges established at an international level, as well as the crises that they experience in their territory. In this way, Forero (4) points out two fundamental aspects in the challenges of the CSR; first, there is a lack of interest in the social responsibility of universities, since the traditional model focused on academic and administrative management based on statistical terms usually prevails, a situation that leads to the second aspect that consists of assigning the division of social projection or university extension as responsible for the social programs of the institution, which although relevant is insufficient when considering the university structure. According to Forero (4), at this point is where the inclusion of the CSR becomes necessary, in such a way that strategies are generated that articulate the participation and continuous improvement of universities towards their social commitment seeking a more sustainable human development.

The importance of University Social Responsibility (USR) for university students lies in guiding them as ethical and committed citizens who favor the well-being of the community and sustainable development (5). The relevance of its measurement lies in understanding how the actions of the institution contribute to the training of students and how they contribute to society; the generation of professional practices articulated with the common good of the environments leads to the application of ethical conduct. Likewise, it identifies the sectors that must be strengthened in order to generate educational actions that promote the development of professional and socio-emotional skills in students (6). Bringing students closer to the needs of communities during university education raises empathetic, critical and proactive professionals, technologists and technicians. Based on the previous panorama, the measurement of the perception of the actors involved takes on an essential value in this process, so the objective of the research is to analyze the validation process of USR scales applied to students.

2. Methods

The scoping review was conducted following the parameters of Arksey and O'Malley (7) due to the need to map relevant studies, summarize their results, and identify knowledge gaps. The literature search was conducted in July 2023 and covered six databases: Pubmed, EMBASE, ERIC, Epistemonikos, LILACS, and Web of Science. The key term was "University social responsibility" combined with "Validation Study", "Validation Studies as Topic", "scale development", "measurement scale", "reliability" and "factor analysis". Table 1 presents the search strategy performed in Pubmed and Embase; the remaining searches were similar.

Database	Search strategy
	Table 1. Search strategy in the PUBMED and EMBASE databases
PUBMED	(((("university social responsibility") OR ("Social Responsibilities"[Title/Abstract] OR "Responsibilities, Social"[Title/Abstract] OR "Social Responsibilities"[Title/Abstract] OR "Responsibilities, Social"[Title/ Abstract] OR "university social responsibility"[Title/Abstract])) AND (((((Universities[Title/Abstract]) OR University[Title/Abstract]) OR (Education, Professional[Title/Abstract] OR Professional Education[Title/Abstract])) OR (University community engagement[Title/Abstract])) OR (education for sustainable development[Title/Abstract]))) OR (community Education[Title/Abstract]))) AND (Validation Study OR Validation Studies as Topic OR scale development OR measurement scale OR reliability OR factor analysis)
EMBASE	('social responsibility' OR 'responsibilities, social' OR 'social responsibilities' OR 'responsibility, social' OR 'university social responsibility':ab,ti) AND ('universities' OR 'university':ab,ti OR 'education, professional' OR 'professional education':ab,ti OR 'university community engagement':ab,ti OR 'education for sustainable development':ab,ti OR 'community education':ab,ti) AND ('instrument validation'/exp OR 'validation study'/exp OR 'scale development'/exp OR 'reliability'/exp OR 'factor analysis'/exp)

Articles were selected that presented at least the validity or reliability of the scale in university students. Letters to the editor or results that did not describe the psychometric properties in the student group were excluded. There were no time or language restrictions. From the selected articles, the following were extracted: a) year of publication; b) country of validation; c) number of universities; d) number of students; e) initial domains of the scale, and f) type of psychometric properties analyzed in each scale.

3. Results

The search yielded a total of 161 results. 49 articles related to scales on RSU were found. 32 articles were excluded for the following reasons:

a) 16 studies applied scales but did not present the psychometric properties (8-23).
b) include populations other than students (24-32).
c) not discriminate against the results of students from other interest groups (33-36).
d) scale on socio-emotional skills (37).
e) scale on professional identity (38), and
f) an article analyzed the methodological proposals for the validation of scales (39).

3.1 General characteristics of the scales

The 17 selected articles were published between 2005 and 2023 (Table 2). Seven investigations were validated in students from Latin America (1-2, 5, 40-43), five from Europe (6, 44-47) and five from Asian countries (3, 48-51). The study with the largest sample size was conducted by Liu et al. (3) followed by Latif et al. (51) and Severino et al. (43). The 17 investigations are described below according to the geographic region in which the psychometric tests were administered.

3.1.1 Scales applied in Latin America

For the Latin American case, two investigations were carried out in Mexico (40-41), one in Peru (5), in Chile (42), in El Salvador (1), in Brazil (2) and the remaining one included students from Chile and Colombia (43). The studies are described from the most recent to the oldest.

Severino-González et al. (43) analyzed 522 participants from two HEIs: 230 students in Talca (Chile) and 292 students in Bogotá (Colombia). The questionnaire was titled: "Questionnaire on the perception of social responsibility of HEIs" and was initially made up of six domains and 26 items. After an expert judgment, the researchers performed the Exploratory Factor Analysis (EFA) on the Chilean students, obtaining a Kaiser-Meier Olkin (KMO) of 0.900 and a Bartlett sphericity test with a p < 0.000, which indicated that the matrix was factorable and appropriate. The Confirmatory Factor Analysis (CFA) was carried out on the Colombian students where the statistical tests were

equally satisfactory. After these analyses, four factors composed of 17 items resulted. By comparing the factors that make up the model, discriminant validity was verified. The lowest value of the composite reliability was 0.744, which indicates an appropriate internal consistency. The authors conclude with this research that strategies can be designed that cover: a) dignity and respect, b) freedom and citizenship, c) care for the environment and d) empathy and solidarity, in order to promote teaching and learning processes oriented to responding to the social needs identified in the study (Table 3).

Table 2. General characteristics of the 17 scales on RSU in students.

Authors (year); Reference	Scale name (Likert score)	Validation country (number of universities): Population	Initial Domains (Item No.)
Alghamdi (2022); (50)	Students' perception of RSU (5 points: Strongly disagree - Strongly agree)	Saudi Arabia (1): 350 students	1. Operational responsibilities (7) 2. Legal responsibilities (7) 3. Voluntary responsibilities (5) 4. Community responsibilities (6) Total items: 42
Azizi and Sassen (2023); (47)	Factors that drive the construction of RSU reputation (7 points)	Germany and the United Kingdom: 374 students: 157 Germany and 217 United Kingdom	(1) Quality of learning services (7) (2) Performance (5) (3) Transfer (6) (4) Attractive (5) (5) Competition (6) (6) Sympathy (8) (7) Student loyalty (4) (8) Student satisfaction (1) Total items: 42
Bolio and Pinzón (2019); (41)	Dimensions of Social Change Model (4 points: Strongly agree to strongly disagree)	Mexico (2): 102 students	1. Personal transformation (19) 2. Transformation of relationships (14) 3. Transformation of collective patterns of thought and action (12) 4. Transformation of structures (15) Total items: 60
Davidovich et al. (2005); (42)	Questionnaire for the Attribution of Socially Responsible Behaviors (For behavior: 5 points: Never until always and for intention: 4 points: Personal benefit to benefit for all)	Chile (1): 30 students	Behavior Categories (No information on number of items) 1. Academic Responsibility 2. Volunteer Activities 3. Social Aid 4. Religious Activities 5. Social Coexistence 6. Civic-University Responsibility 7. Self-care 8. Cultural development 9. Ecology and Environment 10. Respect for shared spaces Categories of Intent 1. Self-orientation 2. People orientation 3. Orientation of the individual according to his ethical principles
De la Calle et al (2008); (46)	University Social Responsibility Scale (6 points: lowest level to	Spain (1): 93 students	1. Personal involvement through commitment to others, especially those most in need (6)

	highest level)		2. Personal discovery of values (6) 3. Formation of social consciousness (6) 4. Greater awareness of the reality of other people's suffering (6) 5. Approach to the exercise of the profession from social commitment (6) Total items: 30
Flores et al. (2022); (5)	Proposal for a survey on University Social Responsibility (5 points: Totally disagree - Totally agree)	Peru (1): 150 students	1. Academic Training (5) 2. Research (3) 3. Connection with the Society (7) 4. Institutional Management (4) 5. Environmental Management (4) Total items: 23
Gallardo (2019); (6)	Scale of measures of social responsibility in the university context (7 points: Totally disagree to totally agree)	Spain (1): 284 students	1. Transversal skills (12) 2. Training in Social Responsibility (8) 3. Participation in some university activities and contribution to various programs (12) Total items: 32
Garcia et al. (2016); (44)	RSEU measurement questionnaire (6 points: minimum agreement to maximum agreement)	Spain (1): 404 students	1. Commitment to others and the environment (5) 2. Personal discovery of values (5) 3. Formation of social responsibility (5) 4. Approach to professional practice from social commitment (5) Total items: 20
Hung et al. (2022) (49)	Health Promotion Literacy Based for MSW Students (HPLS-USR) (5 points: highly appropriate to very inappropriate)	Taiwan (1): 200 students	Without initial domain name: 22 items
Latif et al. (2022); (51)	Abbreviated RSU Scale (5 points: Strongly Disagree - Strongly Agree)	Pakistan (8): 608 students	1. Ethical responsibilities (7) 2. Research and development (6) 3. Philanthropic responsibilities (6) Total items: 19
Liu et al. (2022); (3)	Chinese University Students' Social Responsibility Scale (CUSSRS) (5 points: strongly disagree to strongly agree)	China (6): 696 students	Without initial domain name: 24 items
Nguyen and Nguyen (2022); (48)	RSU scale (5 points: Strongly disagree - Strongly agree)	Vietnam (5): 40 (preliminary test) and 446 (Factor analysis)	1. Educational program (4) 2. Organizational management (5) 3. Knowledge management (5) 4. Social commitment (4) 5. Global commitment (3) 6. Quality of service (3) 7. Customer loyalty (3) Total items: 27
Sanchez et al.	No name is mentioned	Brazil (1): 392	1. Responsible management (12)

(2016); (2)	for the scale (10 points: Totally disagree to Totally agree)	students	2. Responsible educational programs (8) 3. Responsible research (9) Total items: 29
Serrano et al. (2022); (40)	University social responsibility scale (4 points: Totally disagree - Totally agree)	Mexico (1): 500 students.	1. Professional and civic training (6) 2. Social knowledge management (12) 3. Social participation (7) 4. Responsible management (5) Total items: 30
Severino et al (2022); (43)	Questionnaire on the perception of social responsibility of HEIs (Higher Education Institutions) (5 points: Strongly disagree - totally agree)	Chile and Colombia (2): 522 participants: 230 students from Chile, and 292 students from Colombia.	1. Human dignity (4) 2. Human freedom (4) 3. Citizenship and participation (5) 4. Solidarity (4) 5. Environmental and sustainable development (5) 6. Principles and values (4) Total items: 26
Severino et al. (2022); (1)	Scale of perception of social responsibility of HEIs, in its short version, designed by Severino-González et al. (53) (5 points: Totally disagree - Totally agree)	El Salvador (not determined): 216 students	Without initial domain name: 22 items
Vazquez et al. (2014); (45)	Overall perception of RSU and student satisfaction (5 points: Strongly Disagree to Strongly Agree)	Spain (1): 400 students taking their final years.	1. Educational impact (12) 2. Cognitive impact (10) 3. Organizational impact (12) 4. Social impact (12) Total items: 46

EFA: Exploratory factor analysis; CFA: Confirmatory factor analysis; RSEU: Social Responsibility of the University Student

Serrano et al. (40) selected 500 university students from the city of Mérida (Mexico) applying the scale called "University Social Responsibility Scale" which sought a concordance with the Vallaeys social responsibility measurement model (52). In this way, the domains of this scale focused on three aspects: a) Social management of knowledge, b) Professional training and c) Social participation. The researchers started with 150 items, which were applied to 66 students chosen by simple random sampling. 30 unbiased items were revealed that were included in the psychometric tests. In their EFA they found a total variance of 30.97 % grouping 20 of the 30 items; a point that partially confirms the structure of the Vallaeys model (52). Despite this, both the internal consistency and the correlation of the domains were adequate. The authors concluded that, in order to construct and subsequently validate a scale applicable to measuring RSU, one must: a) look for the relationship between RSU and other variables, such as: life skills, socio-emotional competencies and the culture of peace, and b) analyze in the scale possible contributions to the comprehensive formation of RSU and student well-being.

Flores-Fernández et al. (5) studied a population of 150 students from a public university in Peru, proposing a scale, developed through expert judgment, in which 23 items were established in five domains: academic training, research, connection with society, institutional management, environmental management; these represent the substantive university functions. The EFA indicated an explained variance of 65.5% with an adequate KMO and Bartlett's sphericity test; with four final domains resulting from this analysis. The Cronbach's alpha coefficient for each domain was satisfactory. Thus, the authors concluded that the perception of USR in students has a positive

effect, allowing the design of strategies, practices and policies that can contribute to students and to the solution of problems that may exist in society.

Severino et al. (1) designed an instrument entitled "Perception Scale of Social Responsibility of HEIs", which consists of 22 variables and is divided into three sections; the first is composed of filter questions that allow discrimination taking into account the inclusion and exclusion criteria, the second has statements that collect the sociodemographic characteristics of university students and the third has items that reveal the perception of social responsibility. This was applied to 216 university students in the three areas that make up El Salvador. Both the KMO test and the Bartlett sphericity test were adequate in the EFA, the total variance found was 69%. Four domains were formed with 17 items with a positive and significant correlation between the domains and with sufficient internal consistency. This research concluded that the importance of socioemotional education must be recognized to achieve the objectives of the RSU, as well as emphasizing the significant role of this in adopting competent and socially responsible professionals.

The Bolio and Pinzón scale (41) began with 80 items taken from the literature, which were evaluated by eight experts; after this content validation, it was reduced to 40 items. Later, 20 items were added in order to include the Retolaza Model of Dimensions of Social Change (54). The 60 items were adjusted to the dimensions: a) Personal transformation; b) Transformation of relationships; c) Transformation of collective patterns of thought and action, and d) Transformation of structures. The 60 items were applied to a sample of 102 students from undergraduate programs at two private universities in Mexico. With the EFA, a total of 47 items were retained and the Cronbach alpha test to assess internal consistency was 0.932. With these results, the authors concluded that the scale allows the student to reflect on how he or she can generate a real impact on society and his or her role in it.

In order to expand previous knowledge about social responsibility in the field of higher education institutions, Sánchez and Mainardes (2) applied a 10-point Likert-type scale to 392 students at a university in Brazil. The scale started with 29 items and three domains. The results were satisfactory in the EFA, convergent validity (AVE=0.880) and composite reliability (0.956). The authors emphasize the active role of the university in society and propose that the designed and developed model has an added value for a Social Responsibility focused on competitive advantages and on the student as its center, aiming at marketing strategies.

Davidovich et al. (42) aimed to construct and validate an instrument to evaluate the self-attribution of socially responsible behaviors. With the help of six judges, they constructed a scale composed of 10 categories of behavior and three categories of intention. The first part included items on academic responsibility, volunteer activities, social help, religious activities, among others, and the second part includes the categorization of the orientation toward oneself, toward people, and that of the individual according to his or her ethical principles. This scale was applied to 30 students from the University of Concepción (Chile). The internal consistency for the first part of the scale was 0.82 and for the second part it was 0.76.

The results of applying this scale show that the individuals surveyed attribute to themselves the exercise of socially responsible behaviors; however, it is necessary to make decisions at a macrosocial level that encourages cooperation, openness and tolerance towards the development of a responsible society. The authors indicate that self-attribution models involve self-perception as an influence on students' behavior.

3.1.2 Scales applied in Europe

Of the five investigations, four were conducted in Spain (6,44-46). The remaining investigation (47) was applied by Azizi and Sassen in Germany and the United Kingdom; this investigation analyzes whether USR activities influence the reputation of the university perceived by students. It is a scale with 42 questions and eight domains; the USR activities mentioned by the researchers

include: learning services, research and knowledge transfer). The authors indicate a favorable result in the perception represented in satisfaction and loyalty when the USR is involved in the training of students.

In the case of Gallardo's study (6), 284 students from programs at the Faculty of Economic and Business Sciences of the University of Extremadura were surveyed. Its scale was designed from a theoretical review in which the domains were: a) Transversal competencies, b) Training in Social Responsibility, c) Participation in some university activities and contribution to various programs. After the theoretical review, this researcher relied on 15 experts in social responsibility; with this process, 32 items were compiled. During the AFE, the KMO was 0.879. Four domains were agglomerated with a total variance of 56.89% and after the varimax rotation, eight items were removed. In the CFA, an acceptable fit was established. The internal consistency and the composite reliability of the AFE and CFA, respectively, presented adequate measures; convergent validity and discriminant validity were also established. All processes comprised three factors and 20 items named as follows: a) Participation in socially responsible programs and activities; b) Transversal competencies for social and professional improvement and c) Continuing education in Social Responsibility. Therefore, the author concluded that this instrument guides sustainability and allows for the implementation of changes in the curricula, even more so for policies that affect the student population.

In 2016, García et al. (44) designed an instrument entitled the Social Responsibility of University Students (RSEU) Measurement Questionnaire, which was applied to 404 students of the social responsibility course at the Francisco de Vitoria University. The questionnaire is composed of four domains, each with five items that are valued on a Likert-type scale from 1 to 6. The authors indicate that RSEU is embedded in RSU. The KMO (0.938) and Bartlett's sphericity test ($\chi 2$= 3592.277; gl =190 and p=0.000) were adequate. Three factors were adjusted with an explained variance of 56.45% with a total of 19 items; later, the CFA corroborated the adjustment to these three domains. There was high homogeneity in all items (Cronbach's alpha=0.923) and internal consistency in each domain and between domains. Based on the results, it was concluded that the scale is a very reliable, consistent and appropriate tool to assess the construct.

Vázquez et al. (45) conducted a study in which 400 students from the University of León, Spain, were sampled. They were administered a 46-item questionnaire on Social Responsibility that was divided into four categories: a) educational impact, b) cognitive impact, c) organizational impact, and d) social impact. The scale was based on the Vallaeys model (55), a review of the literature and similar instruments (56-60). This process was analyzed by three experts and in its initial result 46 items were found and four domains were formed on educational, cognitive, organizational, and social impact. The principal component analysis of the EFA revealed a better solution of six factors that explained 50.32% of the total variance. Both the EFA and the convergent validity tested factor loadings for 30 of the items. The discriminant validity was satisfactory as was the internal consistency of the scale. The authors emphasize the need for strategies focused on structure, mission and vision, as well as on understanding the needs for student satisfaction and thus preventing student dropout.

In the exploratory study carried out by De la Calle et al. (46), eight experts identified 30 items on RSU. These items were then applied to 93 students who took the course on this topic at the Francisco de Vitoria University. 27 of the 30 items presented adequate factorial loads explaining a total variance of 50% and a high global reliability (0.93). The validation process found a total of five domains: a) Personal involvement through commitment to others, especially those most in need; b) Personal discovery of values; c) Formation of a social conscience; d) Greater knowledge of the reality of the suffering of others; and e) Approach to the exercise of the profession from a social commitment. It was concluded that the scale has good reliability and validity, thus, its impact on comprehensive training focused on the university environment can be evaluated.

3.1.3 Scales applied in Asia

The five Asian studies were conducted in different countries: Vietnam (48), Taiwan (49), China (3), Saudi Arabia (50) and Pakistan (51). Nguyen and Nguyen (48) applied an instrument of their own authorship to a population of 446 students from five universities in Vietnam. The instrument domains included 27 items which were distributed in: educational program, organizational management, knowledge management, social commitment, global commitment, service quality and customer loyalty. A preliminary test was conducted with 40 students and good internal consistency was observed. Then, in 446 students, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) showed a good fit to the USR model. Adequate convergent validity was established and discriminant validity was confirmed. Internal consistency was satisfactory with a minimum Cronbach's alpha of 0.7 (61). The correlation between final domains identified "responsible education programs" as the factor with the greatest impact (0.50). The authors concluded that the instrument is valid and reliable, highlighting that all these domains have a significant and positive impact on overall participation in RSU. In addition, they found that this participation influences the quality of service and the loyalty of "customers" (students and other stakeholders) towards universities.

In a study conducted in 2022 by Hung et al. (49), they applied a scale called "Health Promotion Literacy-based Scale in University Social Responsibility" (HPLS-USR) to a sample of 200 undergraduate students who had experience participating in MSW programs. The objective of this scale is to measure the experiences and reflections of students while taking MSW curricula. The instrument was initially composed of 41 items, and after a panel of experts, 22 were left. Each one measures specific reflections in MSW courses, and these allow participants to review and consider their learning experience and the development of knowledge in these spaces.

The EFA confirmed the four-domain structure (KMO=0.908 and Bartlett's test of sphericity, χ^2 (231) = 2308.19, p < 0.001); the total variance was 61.83 %. Excellent internal reliability and item-total correlations with good discriminatory properties are presented. The researchers analyzed the criterion validity by relating the additional scale of service-based learning experiences and a scale of growth in service-based learning (SLES and SLGS). Significant correlations are presented in the four domains of the HPLS-USR and the SLES and SLGS scales. This exercise allowed to conclude that the essential learning objective for students participating in RSU is to develop citizenship through social engagement, as well as to guide the development of learning experiences to refine university curricula.

Liu, B. et al. (3) conducted an applied research on a sample of 646 university students using the "Chinese University Students Social Responsibility Scale" (CUSSRS). This scale contained domains that describe different types of responsibilities, such as: a) Values and commitment to the nation and its development, b) Concern and actions that the person takes towards the protection of nature, c) Empathy and willingness to do activities that benefit other people and d) Participation and collective responsibility. The initial questionnaire was given to a group of university students (n = 50), and those items that were not clearly expressed, understood or had other defects were rewritten according to the feedback from the students. 24 items were subjected to an EFA on 325 students, a KMO and a Bartlett test were found to have good performance. Seven items were discarded after the extraction. The total variance was 59.7%. The AFC was composed of 321 students and its adjustment indices were good; four factors were consolidated, directed towards national, environmental, responsibility towards others and organizational types. Both for the AFE and the AFC the consistency was good. The retest in 52 students presented good results. The criterion validity was carried out by comparing the altruistic values subscale of the Short version values scale (SVVS) with the responsibility towards others and Responsibility towards the environment subscale of the CUSSRS scale, obtaining moderate correlations in both cases. According to the authors and given the good internal consistency and validity, this scale could be applied in different sociocultural contexts.

In Alghamdi's research (50), it was identified whether, from the students' perspective, USR helps in social changes in Saudi Arabia and the relationship of USR with student satisfaction and quality of services was examined. The study was conducted on 350 social work students from the Faculty of Social Sciences. The scale is composed of four domains related to: Operational Responsibilities, Legal Responsibilities, Voluntary Responsibilities and Community Responsibilities. The scale presented adequate results in the principal component analysis and reliability. According to the authors, students perceive a moderate level of compliance with university social responsibility (USR) by the university, the quality of services offered and their satisfaction. Of the four subscales, legal responsibility revealed the highest satisfaction in students.

Latif et al. (51) investigate how student loyalty can be improved by involving USR, service quality and satisfaction. They include undergraduate and graduate students from eight higher education institutions in Pakistan. By applying a short scale of 19 items, they found a three-factor structure that explains 60.8% of the total variance in USR. Both internal consistency and discriminant validity were found to be good. The study supports the idea that USR in higher education creates added value for students because it is associated with a positive perception of service quality and increased student satisfaction, trust and loyalty.

4. Discussion

The concept of Higher Education addresses various aspects, including rethinking its actions with a socially responsible approach through the training of students or the competitiveness of the market in order to prepare its graduates for the world of work. The perception of students about Higher Education Institutions is highly influenced by the quality of their services and, currently, is not limited to classroom instruction; it encompasses a series of relevant elements that account for the rapprochement between social reality and the academic world. In this sense, the implementation of University Social Responsibility (USR) plays a crucial role in improving this relationship, since it highlights the importance of the student, their expectations, working conditions and quality of life; this facilitates the creation of educational strategies that benefit both the University and the student (2). In order to demonstrate the studies of instruments that assess USR in students, this research found 17 scales; most of them developed in Latin America (1-2, 5, 40-43); When comparing the content of the domains, a variety of items is evident, possibly as a reflection of the social organization in each University and the meaning of the actions in their substantive functions.

Since CSR is a comprehensive strategy, it involves the corporate culture of universities (2) reflected in the Mission, Vision, and Institutional Principles. This is a dialogic opportunity in the university academic communities to reflect and strengthen their values, increase the feeling of belonging and act in congruence with the social problems in the context. Such is the case of scales such as Gallardo (6) and Severino et al. (43) that represent the formation of values, participation in socially responsible activities and the development of competencies in social responsibility. In this way, these investigations incorporate topics as relevant as freedom, citizenship, respect, dignity, empathy, solidarity and care for the environment that strengthen the ethical attitude of the student (6). Another example is the study by Serrano (40), which reveals the importance of skills, not only as professionals, but for life by proposing emotional competencies as a fundamental point in the approach to CSR. In relation to the curriculum, Hung et al. (49) In its program on CSR, it explicitly values attitude by giving relevance to self-awareness, relationships with others, intellectual abilities and the attitude of civic responsibility. In accordance with what is described in the scale by De la Calle et al. (46), its five domains represent everything from internal commitments to actions towards social reality reflected in the suffering of their fellow human beings and alleviated by an ethical and responsible professional practice.

Likewise, higher education institutions work to contribute to the transformation of society, so the scale developed by Bolio et al. (41) manages to identify sustainable development objectives that

seek to train socially responsible students who contribute through their profession to the development of the community. Through the development of their instrument, they were able to obtain results oriented towards university actions capable of analyzing organizational efforts and their impact on the way the student sees himself and his environment and, in a complementary way, open the doors to teacher reflection on how much their educational practice impacts the way the student conceives himself and his profession. In this same sense, Liu (3), in his scale, considers the relevance of values and the relationship with his nation; the protection of nature; empathy and will; and, participation and collective responsibility. This scale (3) presents methodological advantages when sampling the population randomly to carry out the exploratory and confirmatory factor analysis in the same population and establish temporal stability (3); future research could make use of these methods for the new scales.

For Davidovich (42) the RSU is a reflection of self-perception and for Severino (1) it points to the sense of a socio-emotional education. In the García scale (44), its theoretical anchor was based on critical thinking, empathy and the ability to generate commitment. Therefore, it is essential that the student learns to positively influence his environment; this requires the generation of strategies that promote personal factors, such as: personal growth and intellectual development (44). In the case of Flóres-Fernández (5) the relevance of the substantive functions with the social approach is analyzed when the RSU is transversalized in student training, which leads to the generation of strategies, practices and policies of institutional order.

Seen from a competitive perspective, USR is an advantage. This is supported by six scales (2, 45, 47-48, 50-51), mostly of Asian origin (48, 50, 51). In the study by Nguyen and Nguyen (48) they describe global commitment as a source of USR and its relationship with conditions such as knowledge management, responsible education programs, quality of service, among others; this scale indicates that through the loyalty of students (mentioned as internal clients) a mechanism is generated that contributes to fostering competition in a socially responsible environment. Latif et (51) support this idea by suggesting that the creation of programs that promote and maintain successful long-term relationships with students generate satisfaction and loyalty when USR is involved. Alghamdi (50) relates the quality of university services and student satisfaction as promoters of USR; It is striking that one of the most influential domains corresponds to legal responsibility, which consists of compliance with standards of conduct, rules, respect for rights, clear procedures in case of violations and work related to values, principles and social customs. For their part, Vásquez et al. (45) state that by addressing the quality of service and student satisfaction, a strategy can be built that gives priority to competitiveness. According to these researchers, once such satisfaction is established, in terms of the academic experience, feedback is generated which can lead to a sense of loyalty and, therefore, contribute to building the reputation of the institution. The Azizi scale (47) is oriented towards recognizing the reputation of the University as a result of learning services, research activities and the transfer of knowledge through the USR and its impact on satisfaction and loyalty. The study by Sánchez and Mainardes (2) is the Latin American research that addresses student satisfaction and the social entrepreneurship culture at the University, indicating the importance of the potential of the alma mater in society and its competitive advantage. This motivates universities to include in their approach to social responsibility activities in management, in their educational and research programs, not limited to carrying out philanthropic activities (2).

According to Martí et al. (39), the inclusion of USR in the transversal training of university students is not an easy path. They recommend that universities contact university teams that have made progress in the generation of indicators for adequate promotion and social evaluation. For this reason, the review of scales and their meaning generates an impact on the perception of accurate and reliable USR among students, directly contributing to decision-making in student retention policies and strategies for improving the organizational climate.

5. Conclusions

- The scales presented adequate psychometric properties; it is relevant to include several theories on USR to improve content validity. In general, the construction and validation of scales on USR in students allows a reflection on university environments with an explicit sustainable social sense that involves the entire academic community.
- The scales of RSU in students show, to a greater or lesser extent, the substantive functions of the university and its connection with the surroundings. The studies found develop these scales with the purpose of promoting a better university environment and projecting actions towards the communities. In addition, it generates a sense of loyalty and competitiveness with the alma mater.
- Take-home message: By aligning academic, research, outreach and educational management initiatives with the meaning of CSR, a positive impact on the university community and social environments is fostered; this holistic approach ensures that the scale is not only an assessment instrument, but a tool for the sustainable development of the University.

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Table 3. Psychometric properties performed in the 17 validation studies on University Social Responsibility in students

Reference	Content validity	AFE	AFC	Criterion validity	Convergent validity	Discriminant validity	Concurrent validity	Global reliability	Internal consistency	Correlation between domains	Proof re-test
Alghamdi (2022); (50)		X						X			
Azizi and Sassen (2023); (47)	X				X	X					
Bolio and Pinzón (2019); (41)	X	X							X		
Davidovich et al. (2005); (42)	X								X		
De la Calle et al. (2008); (46)	X						X	X	X	X	
Flores et al. (2022); (5)	X	X						X	X		
Gallardo (2019); (6)		X	X		X	X			X		
Garcia et al. (2016); (44)		X	X					X	X	X	
Hung, et al. (2022); (49)	X	X		X				X	X	X	
Latif et al. (2022); (51)					X			X	X		
Liu, B et al. (2022); (3)		X	X	X					X		X
Nguyen and Nguyen (2022); (48)		X	X		X	X		X	X	X	
Sanchez et al. (2016); (2)		X			X			X			
Serrano et al. (2022); (40)		X						X	X	X	
Severino et al (2022); (43)		X	X			X			X		
Severino et al (2022); (1)		X							X	X	
Vazquez et al. (2014); (10)		X			X	X			X		