

## Model of Structural and Prospective Analysis of University Social Responsibility

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### ARTICLE INFO

### ABSTRACT

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Humanity has mobilized to achieve the Sustainable Development Goals (SDGs); within this framework, both business and government organizations play a dominant role in achieving these goals; universities, as a part of this structure, cannot remain distant from this process, particularly as they are centers for the development of science and technology; in performing substantive functions, the academy generates impacts and responsibilities, especially concerning their interest groups and the environment. In other words, it assumes social responsibility with their environment and with their interest groups; therefore, it is necessary to study and investigate the dimensions generated by this responsibility. This study prospectively analyzed the different dimensions involved in the core functions of academia. It is a qualitative, descriptive, and non-relational study, in which it presented a model of university social responsibility (USR) composed of 5 dimensions and 46 variables, and, through the methodology of scenarios -structural analysis, using the MicMac software, it was determined the dimensions that affect USR in the short, medium and long term. In the short term, within the variables that have high incidence and high dependence, the key variables represent 60% in the training dimension, 67% in management, research, 75%, and 25% in linkage; in environmental management, there are no key variables.

**Keywords:** Social responsibility; University responsibility; USR; Dimensions; Factors; Variables; MicMac; SDGs

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## INTRODUCTION

The sustainable development goals established by the United Nations (UN) in the Sustainable Development Agenda are a guide that countries must follow to achieve the well-being of humanity. According to this Agenda, there must be a balance between economic growth, social inclusion, and environmental protection; all three are of equal importance; the harmony between these three factors will improve the living conditions of the population, which is called sustainable development; the opposite is unsustainable development, which is when human beings seek immediate benefits without thinking about other human beings and much less the environment (UN, 2024)

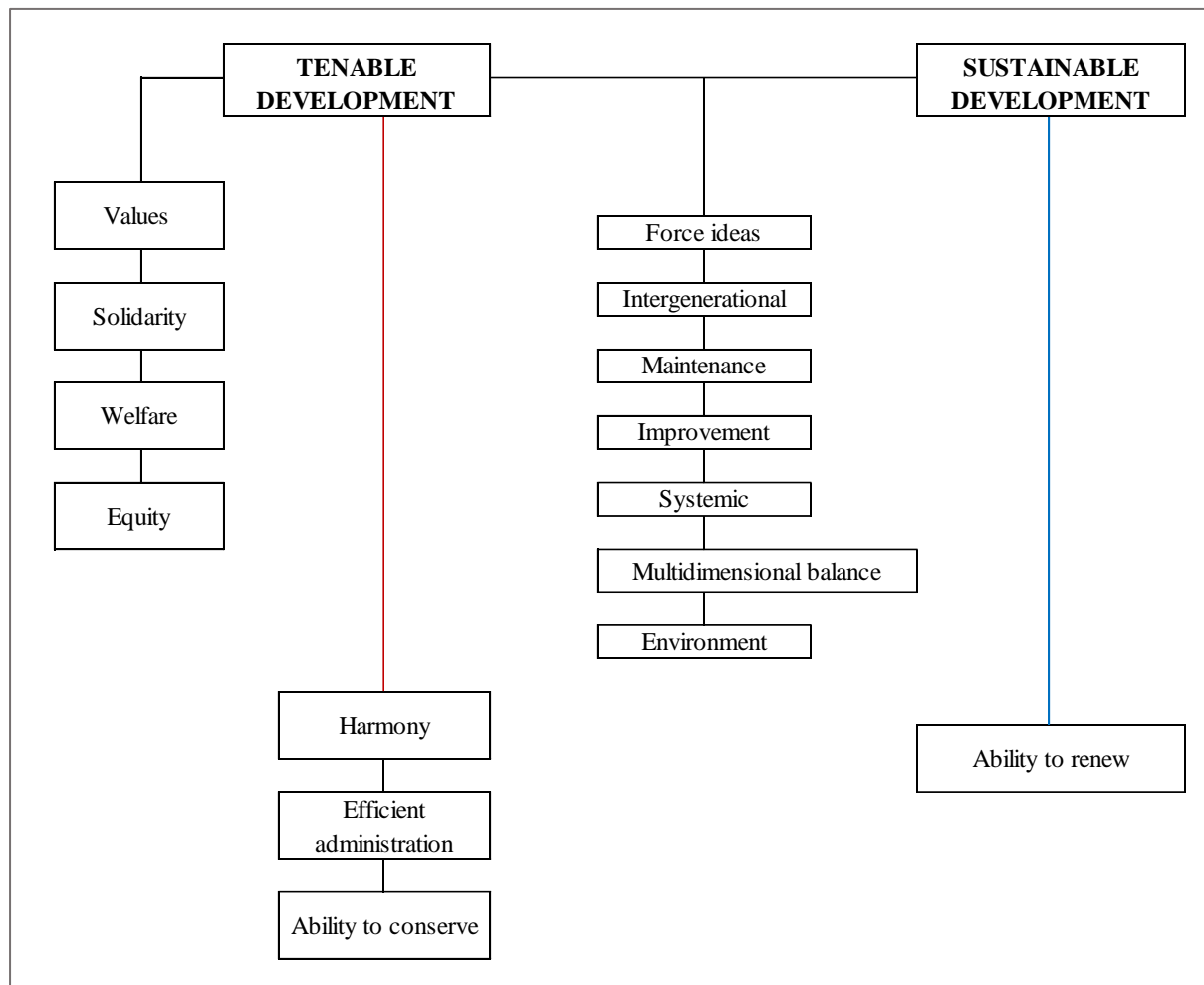
The term sustainable development appears for the first time in the Brundtland Report with the terms of durable development, and it is defined as: "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p. 59). The report already reveals concern about poverty levels and nature's limitations in meeting needs and clearly identifies that poverty, environmental degradation, and population growth are intimately linked.

For Ortiz & Costa, (2023), the term "tenable development" refers to the "balance between the environmental, social, and economic aspects of anthropic systems" (p. 2).; this concept differs from sustainable development in that sustainable development denotes actions that can be maintained over time, without the depletion of resources; tenability, on the contrary, it is a more encompassing concept.

However, in popular slang, sustainable is often confused with tenability, considering them synonymous when, in reality, they are not. To clarify this confusion, it is useful to review what Jiménez (2015) mentions regarding sustainable development "It is the management that, through the application of economic, social and environmental policies, achieves the satisfaction of needs in the same order of ideas, in a reasonable balance, without putting the needs of future generations at risk" (p. 03).

Here, the author mentions a management of policies that tend to satisfy needs that can be maintained for a long time, which is why future generations are mentioned. Likewise, Jiménez (2015) defines sustainability "It is a process through which environmental resources are safeguarded, maintained and stored naturally, managing to guarantee the well-being of current society with a view to its preservation in the future" (p. 03).

In this concept, there is no longer talk about policy management but about processes, which means that they have inputs and output products; tenability is a philosophy that gives an idea to something to defend; it is more about storing resources; sustainability requires effort. Even so, these concepts are ambiguous and do not represent a clear differentiation between the two; the authors Ubilla et al., (2021) do clearly differentiate them based on what they call the *force ideas*, which exist behind each concept; these force ideas are detailed in Figure 1.

**Figure 1***Differences between tenable development and sustainable development***Note:** Taken from Ubilla et al., (2021)

To the authors, after carefully studying the convergences and polysemy of the words, they establish that the differences lie in the fact that sustainable development has values: solidarity, well-being, equity, and, in addition, it differs in harmony, efficient administration, and the ability to conserve.

In any case, the terms continue to be a matter of debate; in Ecuador, the Organic Environmental Code of Ecuador, on its Art. 9 numeral 3, defines sustainable development as:

... Sustainable development. It is the process by which, dynamically, the economic, social, cultural, and environmental spheres are articulated to meet the needs of current generations without jeopardizing the satisfaction of the needs of future generations. The concept of sustainable development implies a global task of permanent nature. It shall be established a fair and equitable distribution of economic and social benefits with the participation of individuals, communes, communities, peoples, and nationalities..." (National Assembly of Ecuador, 2017, p. 14).

In this definition, an interesting area appears, which is culture. Even so, the precept of (Brundtland, 1987) is maintained in substance. It also proposes the equitable distribution of benefits among all. The objective of achieving sustainable development in economic, social, and environmental

terms will be achieved in a concrete and measurable framework; this framework is provided by the SDGs.

Which guide not only the efforts of humanity but also that of universities, Higher Education Institutions (HEIs) must play a fundamental role in achieving them, direct participants in goal 4,3 which states that equal access of men and women to quality technical and higher education, including higher education, must be ensured (UN, 2024). The results reflected in the report on the SDGs are not encouraging, the pandemic accentuated the greatest income inequality between countries in thirty years (UN, 2023).

Private companies, through their R+D+i departments, the State, in its Technology Transfer Centers, and Universities, are responsible for the societies' development. It is necessary to mention that research and the main technological innovations are developed in the university facilities; likewise, students have, in theory, in their graduation profiles the necessary competencies to face and solve the problems that reality imposes on them. It is, therefore, necessary for universities to embrace the SDGs as a social responsibility that they have.

University social responsibility derives from corporate or business social responsibility since, in principle, companies are socially responsible for their actions and since universities are organizations, they are also socially responsible. This social responsibility is clearly defined by the International Organization for Standardization (ISO) in Standard 26000:

... responsibility of an organization for the impacts that its decisions and activities cause on society and the environment, through ethical and transparent behavior that: contributes to sustainable development, including the health and well-being of society; take into account the expectations of its stakeholders; complies with applicable law and is consistent with international standards of behavior; and is integrated into the entire organization and is put into practice in its relationships... (ISO 26000, 2010, p. 2).

The genesis of a company's responsibility must consider the effects that its decisions have on society and the environment; therefore, it must act ethically and transparently to promote sustainable development and the well-being of society, including meeting the needs of interest groups, complying with not only national but also international regulations, ensuring that the principles established in international standards are properly integrated into the company or organization.

## University social responsibility (USR)

If companies have responsibilities to society, universities do too; their social and ethical commitment is greater than that of companies since science and innovation are generated in them; Vallaeys (2021) mentions the following:

... University Social Responsibility requires, from a holistic perspective, to articulate the various parts of the institution in a project of social promotion of ethical principles and equitable and sustainable social development, for the production and transmission of responsible knowledge and the training of equally responsible citizen professionals... (p. 4).

This author gives a more comprehensive vision of what USR is; he speaks of social promotion, promoting to society what the university can do in its environment, as a generator of science and technology and as a promoter of change within its region of influence; without a doubt, the universities where they are located become poles of development, not only because of the economic effects it has but also because of what it can do. In this regard, Mendoza (2021) raises the need to respond ethically to these social needs

... USR is to respond ethically to the needs of society in terms of adequate academic and professional training with a human approach, preparing the population to have opportunities for sustainable development and generate welfare for society, which in its actions with independent freedom or in

community, respects the interests of all and its own, this also implies taking care of the environment where they live, as an inalienable way of ensuring their own subsistence and that of other generations (p. 5)

A more humanistic university is insisted on; this concept is related to those proposed by Brundtland (1987) since the needs of society are above individual needs; something very important is the relationship that is established with nature as a provider of resources; universities also generate impacts on the environment; to (Vázquez et al., 2019) mention 4 areas, and these are:

... 1. Organizational environment: as an institution that operates around a university project, with a structure that develops it and specific policies that promote it. An institution that consumes, contracts, generates waste. 2. Educational field: as an institution responsible for training its students with a professionalizing and civic vocation. 3. Field of knowledge: as an institution that researches, produces knowledge and transmits it. 4. Social sphere: as an institution that is part of society and interacts with other agents, collectives, and communities, both locally and globally... (p. 4)

The environmental field is not mentioned by the author; therefore, it is necessary to analyze the dimensions of USR.

## Dimensions of USR

In this part of the research, four (4) models that encircle the dimensions were reviewed, and from there, a model was proposed. The proposed model was prospective. Table 1 cites the model of the Autonomous University of Yucatán (2020).

**Table 1**

*USR Dimensions University of Yucatan*

| Dimensions                               | Variables   |
|--|---|
| Professional and<br>Citizenship Training | Citizen Issues and SR in the Curriculum   |
|  | Professional learning PBL and volunteering  |
|  | Integration of external actors in the design of Curriculum Maps                                   |
|  | MEFI Educational model for comprehensive education  |
|  | Equity  |
| Social Knowledge<br>Management           | Integration of social actors in the design of Inv. products (inter, multi, and transdisciplinary) |
|  | Lines of knowledge associated with priority areas   |
|  | Social relevance in line with the local agenda  |
|  | Linking research with professional and citizenship training                                       |
| Responsible<br>Management                | Respect for human rights, sustainable environment, and the university community                   |
|  | Equity in access to training  |
|  | Attention to the development of personnel and respect for labor rights,                           |
|  | Organizational climate  |
|  | A sustainable environment   |
|  | Transparency, accountability, and compliance with the law   |

|                      |   |
|----------------------|---|
|                      | Promotion of USR  |
|                      | Integration of the extension function with academic training and research through learning communities                            |
| Social participation | Social projects that promote self-management, autonomy, and the establishment of collaborative networks for community development |
|                      | Active participation in the local and national development agenda and the formulation of public policies                          |
|                      | Constitution of USR university networks   |

**Note:** Source: Autonomous University of Yucatán (2020, p. 14)

Professional and Citizenship Training is linked to teaching and the educational model for comprehensive training (MEFI), with six axes: social responsibility, flexibility, innovation, internationalization, education focused on learning, and competency-based education. The Social Management of Knowledge is research; it orients scientific activity toward real problems of a social, environmental, and economic nature of society. Responsible Management, with the organization in general and its processes, procedures, and institutional actions, and Social Participation is the so-called linkage or extension (Autonomous University of Yucatan, 2020).

Another contribution to the model is the one made by Pérez (2020), which presents five (5) dimensions and adds environmental management as a component of USR; this model is presented in Table 2.

**Table 2**

*Dimensions of the Pérez USR model*

| Dimensions                | Variables  |
|---------------------------|--|
|                           | Maintains agreements with key actors in social development                       |
|                           | Participates in networks.  |
|                           | Participates in the discussion of community issues with key agents               |
|                           | Provide opportunities for interaction with various social sectors.               |
|                           | There is an explicit policy to serve underrepresented or marginalized groups     |
|                           | Studies proposals for social problem-solving in the region and the country.      |
|                           | Promotes student volunteering.   |
| Organizational management | Has an organizational structure to prevent/correct power abuses                  |
|                           | Transparent procedures that respect student rights.                              |
|                           | Considers technical and non-friendship aspects in the allocation of scholarships |
|                           | Expressly prohibits the use of illegal practices                                 |
|                           | Develops procedures for dealing with complaints and conflict resolution          |
|                           | Has policies and programs that promote ethical values.                           |
|                           | Formal policies and mechanisms for suggestions, and criticisms from students.    |
|                           | Training activities for continuous staff development                             |

|                          |   |
|--------------------------|---|
| Environmental management | Promotes environmental and social concern and sensitivity.                    |
|                          | Marketing to promote social and environmental responsibility issues.          |
|                          | Develops strategic partnerships   |
|                          | Has programs to reduce consumption  |
|                          | Office or staff responsible for environmental matters.                        |
|                          | Environmental management actions in strategic planning                        |
| Teaching                 | Publishes an annual report on its environmental performance.                  |
|                          | Stimulates in its students a capacity for entrepreneurship and initiatives.   |
|                          | Promotes open discussion of issues that generate conflict in society          |
|                          | Promotes freedom of thought and criticism in its students.                    |
|                          | Has courses dedicated to Ethics, Social Responsibility, and Development.      |
|                          | Develops environmental education actions                                      |
| Research                 | Discussion of social responsibility issues in training courses.               |
|                          | Practices among all its members the "4 SRs": Reuse, Recycle, Reduce, Respect. |
|                          | Requires ethical considerations in research projects and thesis               |
|                          | Students are required to carry out research with social impact.               |
|                          | Researchers have time and resources to mentor students                        |
|                          | Research projects involve students.   |
| Extension                | Complex interdisciplinary problems are investigated in a way                  |
|                          | Establishes alliances and synergies with other actors                         |
|                          | Lines of research aimed at solving social development problems.               |
|                          | People from different specialties participate in projects                     |
|                          | Has specific means for dissemination and transfer of knowledge                |
|                          | Organizes academic events accessible to the community.                        |

**Note:** Pérez (2020, p. 52-53)

In organizational management, the University must expand its network of contacts to identify the problems of its area of influence, seeking through teaching the generation of enterprises that respect the environment; both research and extension must be articulated in interdisciplinary projects, with the aim of providing solutions to their environment. The Flores et al., (2022) model does not consider the environmental aspect; this model is shown in Table 3.

**Table 3**  
*Dimensions of the Flores USR model*

| Dimensions               | Affirmations  |
|--------------------------|---|
| Broad and transformative | Promotes university volunteering.                           |
|                          | Participates in social responsibility projects and programs |



|  |  |
|--|--|
| academic training  | Organizes activities related to sustainable development.   |
|  | Has agreements with organizations that promote social development  |
|  | Initiatives that allow the development of innovation and social entrepreneurship actions.                            |
|  | Has an office that advises on SR affairs   |
|  | Provides support to apply for scholarships, exchanges, or internships.   |
| Socio-environmental linkage                                | Promotes healthy nutrition and physical and mental care practices.   |
|  | Promotes efficient use of water consumption, energy, and care of green areas   |
|  | Encourages actions in the face of society's environmental problems   |
|  | Disseminates its environmental policy to the university community  |
|  | Has deposits to classify the different types of waste  |
| Research with a social focus                               | Carries out the election processes in a transparent and democratic way   |
|  | Provides free and open access to its documents, rules, and procedures.   |
|  | Promotes multidisciplinary research with a social focus  |
|  | Promotes research that responds to the SDGs  |
| Institutional management and transformative administration | I think it is ready to adapt to new global contexts  |
|  | Considers social and environmental commitment in its institutional mission.  |
|  | Orients my academic training to the service of society.  |
|  | In the development of my courses, I have the opportunity to participate in projects, programs, or social activities. |
|  | The courses I take in my career are up-to-date and respond to social needs   |
|  | Possibility of taking virtual courses  |
|  | Communication strategies that highlight their actions in the face of social problems                                 |

**Note:** Flores et al., (2022, p. 93-94)

Finally, Gutiérrez's (2019) model is presented in Table 4

**Table 4**

*Dimensions of USR according to Gutiérrez*

| Dimensions         | Variables   |
|--------------------|---|
| Responsible campus | Human rights, gender equality and non-discrimination  |
|                    | Personal and professional development, work environment, and implementation of labor rights |
|                    | Environment (sustainable campus)  |
|                    | Transparency and democracy (good governance)  |
|                    | Responsible communication and marketing   |
|                    | Citizenship and social responsibility issues in the curriculum                              |



|                                       |  |
|---------------------------------------|--|
| Professional and citizenship training | Articulation between professionalization and solidarity volunteering       |
|                                       | Professional learning based on social projects                             |
|                                       | Integration of external actors in the design of curricular meshes          |
|                                       |  |
| Social management of knowledge        | Promotion of inter- and transdisciplinary                                  |
|                                       | Integration of external actors in research and design of lines of research |
|                                       | Transfer of useful knowledge to disadvantaged audiences                    |
|                                       |  |
| Social participation                  | Promotion of research applied to development issues                        |
|                                       | Integration of academic training with projection to society                |
|                                       | Fight against welfare and paternalism                                      |
|                                       |  |
|                                       | Promoting social media for development                                     |
|                                       | Active participation in the local and national development agenda          |
|                                       |  |

**Note:** Gutiérrez (2019)

As can be seen, each author presents different dimensions that try to address, as much as, possible what concerns university social responsibility.

METHODOLOGY

This research is qualitative and non-relational descriptive. Documentary research was carried out on four models referenced to the dimensions of university social responsibility; common elements were sought and compared, and a model that has five dimensions and 46 variables is proposed. These variables were worked according to the scenario methodology through structural analysis and then were assessed and analyzed using the MicMac software.

RESULTS AND DISCUSSION

Once the 4 models were analyzed, it was proceeded to consolidate and look for common elements within them, this in order to have the largest number of dimensions with their variables, in order to proceed with the prospective analysis. Table 5 presents the proposed model:

Table 5  
Global model

| Dimensions                                 | Variables   |
|--|---|
| Broad and transformative academic training | Curriculum  |
|  | ABP   |
|  | MC Integration  |
|  | MEFI  |
|  | Human rights, gender equality and non-discrimination                                |
|  | Promotes university volunteering.   |
|  | Organizes congresses, forums, and/or activities concerning sustainable development. |
|  | Has agreements with organizations that promote social development                   |

|  |   |
|--|---|
|  | Initiatives that allow me to develop innovation and social entrepreneurship actions.                  |
|  | An office that coordinates and advises on matters of social responsibility                            |
|  | Provides support to apply for scholarships, exchanges, or internships.                                |
|  | Promotes healthy nutrition and physical and mental care practices.                                    |
|  | Promotes open discussion of issues that generate conflict in society                                  |
| Institutional management and transformative administration | Personal and professional development, a good working environment. and implementation of labor rights |
|  | Responsible communication and marketing   |
|  | Actively participates in the discussion of community issues with key agents.                          |
|  | Possibility of taking virtual courses   |
|  | The courses are up-to-date and respond to social needs  |
|  | Networks and working groups on development issues at local, national, and international levels.       |
|  | There is an explicit policy to serve underrepresented or marginalized groups                          |
|  | Studies proposals to solve the social problems of the region and the country.                         |
|  | Organizational structure to correct power abuses  |
|  | Expressly prohibits the use of illegal practices  |
|  | Programs that promote the values and ethical principles of the organization.                          |
|  | Formal policies and mechanisms to address students' suggestions and criticisms.                       |
|  | Carries out the processes of electing authorities in a transparent and democratic way                 |
|  | Free and open access to its documents, rules and procedures.  |
| Research with a social focus                               | Integration of external social actors in research   |
|  | Lines of research aimed at solving problems of social development.                                    |
|  | Promotes multidisciplinary research with a social focus   |
|  | Research linkage  |
|  | Requires ethical considerations in research projects and thesis.                                      |
|  | Students are required to carry out research with social impact.                                       |
|  | Researchers have the time and resources to advise students who wish to do so.                         |
|  | Research projects involve students.   |
|  | Establishes alliances and synergies with other actors   |
|  | Promotes research that responds to the objectives of sustainable development                          |

|                          |  |
|--------------------------|--|
| Social participation     | Integration of extension with academic training and research through learning communities                                    |
|                          | Social projects promote self-management, autonomy, and the establishment of collaborative networks for community development |
|                          | Active participation in local and national development agenda and the formulation of public policies                         |
|                          | Constitution of USR university networks.   |
|                          | People from different specialties participate in community support projects.   |
|                          | Specific means of dissemination and transfer of knowledge to society.  |
|                          | Organizes academic events accessible to the community.   |
| Environmental management | Fights against welfare and paternalism in university service to the community  |
|                          | Marketing campaigns to promote social and environmental responsibility issues.   |
|                          | Develops strategic partnerships to promote campaigns on HR and the environment.  |
|                          | Programs to reduce energy consumption, water, toxic products, and raw materials.   |
|                          | Has an office and staff responsible for environmental affairs.   |
|                          | Includes environmental management actions in strategic planning  |
|                          | Publishes an annual report on its environmental performance.   |
|                          | The university has repositories to sort the different types of waste   |
|                          | Practices among all its members the "4 SRs": Reuse, Recycle, Reduce, Respect.  |

**Note:** Preparation: Own

To run the dimensions of the model proposed in the program, the variables that will appear in the analysis were named; these are detailed in Table 6.

**Table 6**

*Variables*

| Long Name                             | Short Name   | Dimension |
|---------------------------------------|--------------|-----------|
| Curriculum                            | Curr         | Training  |
| ABP                                   | ABP          |           |
| MC Integration                        | Integ. MC    |           |
| MEFI                                  | MEFI         |           |
| Equity                                | Equity       |           |
| Volunteering                          | Volunteering |           |
| Congresses, activities concerning SD. | Events Ac.   |           |

|   |                   |            |
|---|-------------------|------------|
| Agreements with organizations that promote SD   | Agreements        |            |
| Social entrepreneurship.  | Entrepreneurship  |            |
| Office that coordinates and advises on the affairs of RS  | USR Office        |            |
| Apply for scholarships, exchanges, or internships.  | Scholarships      |            |
| Healthy nutrition practices, physical and mental care.  | Healthy Living    |            |
| Promotes open discussion  | Freedom           |            |
| Personal and professional development, a good working environment, and the implementation of labor rights   | Work environment  |            |
| Responsible communication and marketing   | Communication     |            |
| Virtual courses   | Courses V.        |            |
| Up-to-date courses and responding to social needs   | HL Courses        |            |
| Networks and working groups on development issues   | Networks          |            |
| Explicit policy to serve marginalized groups  | Policies          |            |
| Proposals to solve the social problems of the region  | Proposals         | Management |
| Organizational structure to prevent power abuses  | Structure         |            |
| Illegal practices   | Illegal practices |            |
| Programs that promote the ethical values of the organization.   | Policies E.       |            |
| Student support   | Mechanisms Study. |            |
| Election of authorities   | Elections         |            |
| Free and open access to its documents and procedures.   | Transparency      |            |
| Integration of external actors in investigations  | Ex Actors         |            |
| Lines of research aimed at solving problems of social development.  | Lines             |            |
| Promotes multidisciplinary research with a social focus   | Social Inv.       |            |
| Research linkage  | Vinc. and Inv     | Research   |
| Resources to advise students who wish to do so.   | Resources         |            |
| Research projects involve students.   | Estud Inv.        |            |
| Promotes research that responds to the SDGs   | Inv. SDGs         |            |
| The integration of the extension function with academic and research training through learning communities, | Communities       |            |
| Local and national development agenda   | Local agenda      | Linkage    |
| People from different specialties participate in community support projects.                                | Multidisciplinary |            |

|  |              |                          |
|--|--------------|--------------------------|
| Dissemination and transfer of knowledge to society.                                      | Diffusion    |                          |
| Welfare and paternalism in the university service  | Paternalism  |                          |
| Marketing campaigns for SR and environmental issues.                                     | Mkt. USR     |                          |
| Strategic partnerships   | Associations |                          |
| Programs to reduce energy consumption, water, toxic products, and raw materials.         | Consumption  |                          |
| Office and staff for environmental affairs.  | Of. Env      | Environmental management |
| Environmental management in strategic planning   | Planning     |                          |
| Publishes an annual report on its environmental performance.                             | Balance      |                          |
| Has deposits to classify the different wastes  | Deposits     |                          |
| Tries to practice among all its members the "4 SRs":<br>Reuse, Recycle, Reduce, Respect. | 4 R          |                          |

**Note:** Preparation: Own

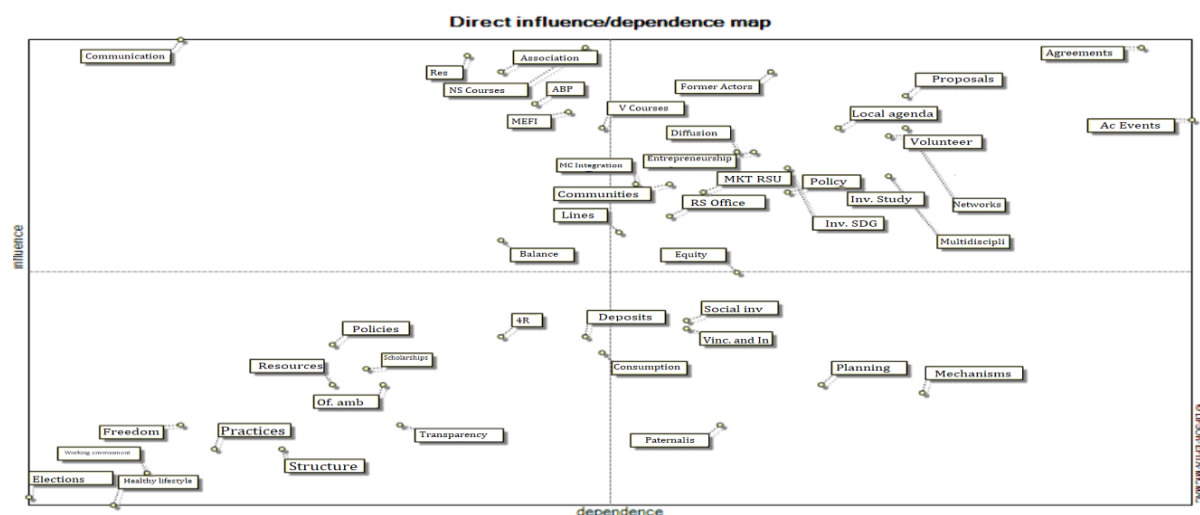
Once the variables were named and assessed according to the methodology, they were run in the Micmac software. The results are presented below.

### SHORT-TERM DIMENSIONS

According to the methodology, the short-term dimensions are those that present high influence and high dependence; their graphical representation is presented in Figure 2.

**Figure 2**

*Short-term dimensions*



**Note:** Results, MicMac Software

The representative variables belong to the 5 dimensions; the dimension that presents the most variables is that of training with 5 variables, and the one with the least is the environmental management dimension, which has a variable that is the marketing of USR, as shown in table No. 7.

**Table 7**

## Short-term dimensions

| Dimensions               | Variables  |
|--------------------------|--|
| Training                 | <b>Agreements</b><br><b>Volunteering</b><br><b>USR Office</b><br>Entrepreneurship<br>Integ. MC |
| Management               | <b>Politics</b><br><b>Networks</b><br>Proposals  |
| Research                 | <b>Inv. Study</b><br><b>Inv. SDGs</b><br><b>Lines</b><br>Ex Actors                             |
| Linkage                  | <b>Multidisciplinary</b><br>Local agenda<br>Communities<br>Diffusion                           |
| Environmental management | Mkt. USR   |

**Note:** Results, MicMac Software

The key variables are in bold and are:

### Training

The university has agreements with organizations that promote social development (State, NGOs, International Organizations, companies, among others).

The university promotes university volunteering.

The university has an office that coordinates and advises on social responsibility matters.

### Management

There is an explicit policy to serve underrepresented or marginalized groups (e.g., Rural population, racial minorities, people with physical or mental disabilities, parents over 45 years of age, people with HIV, ex-convicts, etc.).

Participates in networks, committees or working groups, on development issues at local, national, and international levels.

### Research

It has lines of research aimed at solving problems of social development.

Research projects involve students.

The university promotes research that responds to the objectives of sustainable development.

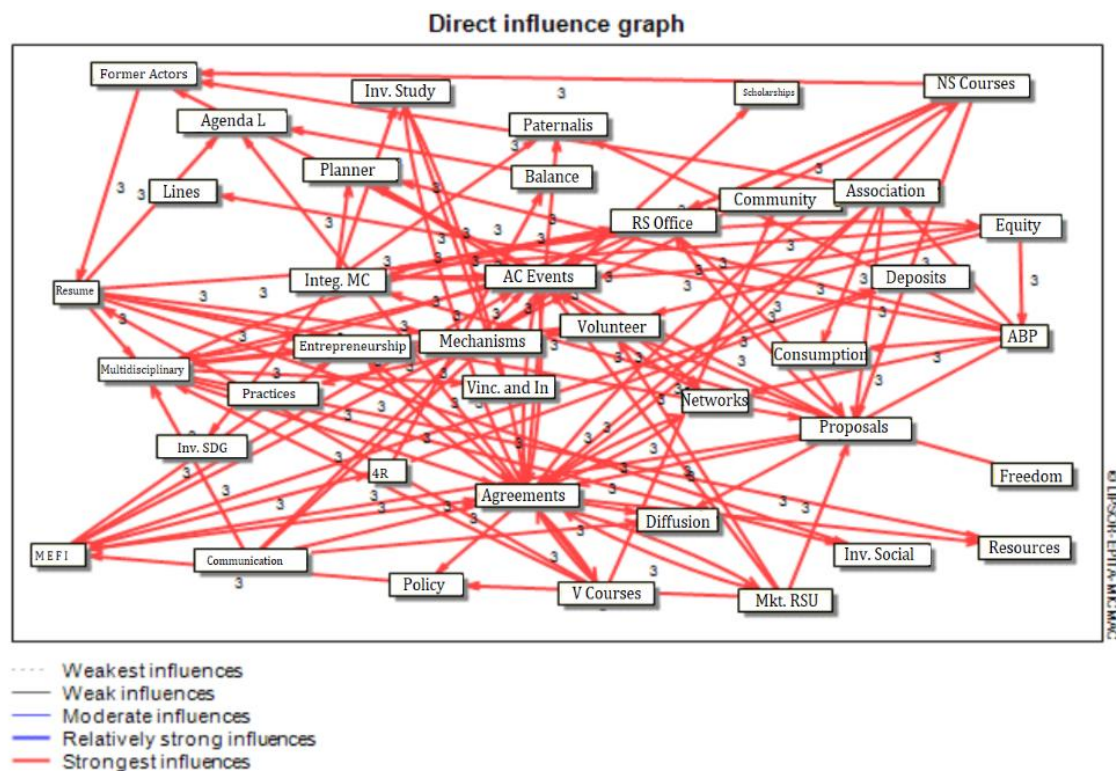
### Linkage

People from different specialties participate in community support projects.

These variables are the keys that must be addressed in the short term. Figure 3 shows the map of influences.

**Figure 3**

*Map of influences*



**Note:** Results, MicMac Software

The most influential variables are:

The university organizes conferences, forums, and/or activities concerning sustainable development.

People from different specialties participate in community support projects.

The university has agreements with organizations that promote social development (State, NGOs, International Organizations, companies, among others).

How these variables have been observed must be considered in the short term; now, the medium-term ones will be analyzed.

Among the variables with high incidence and high dependence, the key variables represent 60% in the training dimension, 67% in management, research, 75%, and 25% in linkage; in environmental management, there are no key variables. These results corroborate what was stated in the study by Condori & Reyna, (2019), through which they show that the training dimension is perceived as adequate by the majority of students (63%), since training in educational and social responsibility, training with learning based on social projects and research training are acceptable in 70%, 60%, and 69%, respectively.

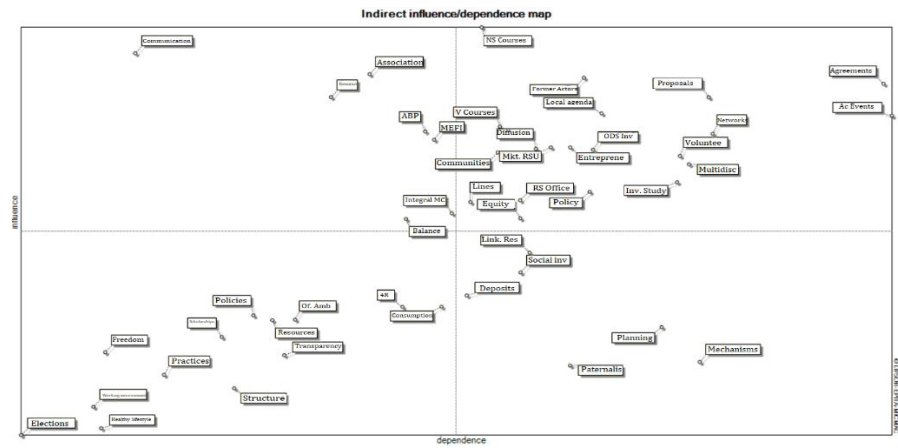
### MEDIUM-TERM DIMENSIONS

The medium-term dimensions are shown in Figure 4:



Figure 4

Medium-term dimensions



**Note:** Results, MicMac Software

These variables are moved to Table No. 8; the ones highlighted in bold are the key variables.

Table 8

Medium-term dimensions

| Dimensions               | Variables               |
|--------------------------|-------------------------|
| Training                 | <b>USR Office</b>       |
|                          | <b>Entrepreneurship</b> |
|                          | <b>Equity</b>           |
|                          | <b>Volunteering</b>     |
| Management               | Agreements              |
|                          | Events Ac.              |
|                          | <b>Proposals</b>        |
|                          | <b>Policies</b>         |
| Research                 | <b>Lines</b>            |
|                          | <b>Inv. SDGs</b>        |
|                          | Inv. Study              |
|                          | Ex Actors               |
| Linkage                  | Communities             |
|                          | Multidisciplinary       |
|                          | Local agenda            |
|                          | Diffusion               |
| Environmental management | Mkt. USR                |

**Note:** Results, MicMac Software

## Training

The university has an office that coordinates and advises on social responsibility matters.

The university has initiatives that allow me to develop innovation and social entrepreneurship actions.

The university promotes human rights, gender equality, and non-discrimination.

They promote student volunteering.

The variable of Equity, which represents human rights, has a good perception in the model, and also in studies carried out by Macías and Bastidas, (2019), the study shows that the variables best valued by students are "the treatment of respect and collaboration between teachers and students," the perception of "Non-discrimination by gender, race, socioeconomic level or political or sexual orientation," students perceive that no type of discrimination should be generated in the context of higher education.

## Management

There is an explicit policy to serve underrepresented or marginalized groups (e.g., Rural population, racial minorities, people with physical or mental disabilities, parents over 45 years of age, people with HIV, ex-convicts, etc.).

Participates in networks, committees, or working groups on development issues at local, national, and international levels.

They study proposals to solve the social problems of the region and the country.

## Research

It has lines of research aimed at solving problems of social development.

The university promotes research that responds to the objectives of sustainable development.

In training, the USR office, policies, and networks become variables that must be addressed in the short and medium term; having lines of research is very important for academia.

The management carried out by the authorities influences the development of society; Rubio et al., (2022) mention:

...Socially responsible management in the university facilitates the thorough fulfillment of: management, teaching, research, and extension, under a coordinated work approach within the university institutions, between them and other social actors. USR is an active, comprehensive, real commitment to the internal and external environment of the university... (p. 114)

With the study results, what the authors have proposed is confirmed.

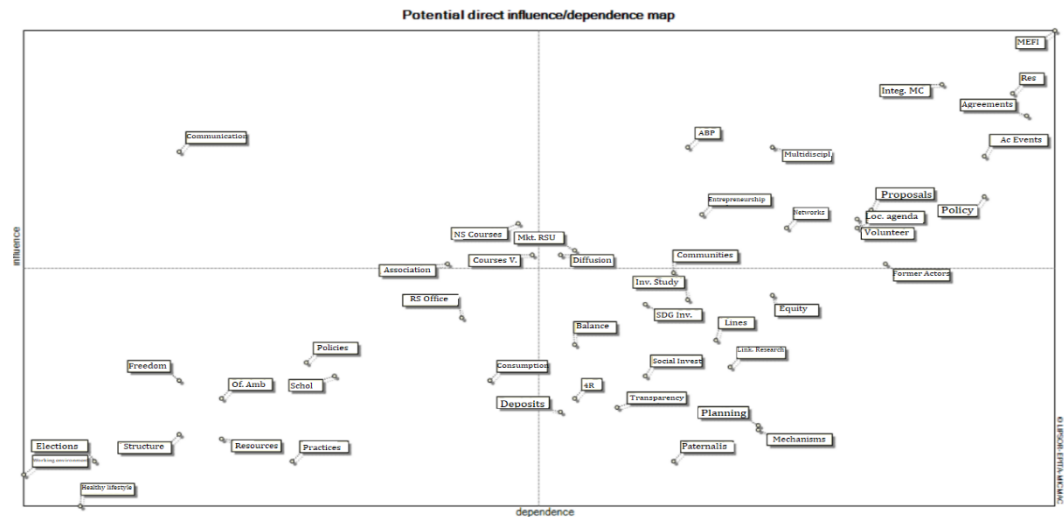
Among the variables with a high incidence and dependence, the key variables represent 100% in the training dimension, 43% in management, and 50% in research; in environmental linkage and management, there are no key variables.

## Long-term dimensions

The visualization of the long-term dimensions is shown in Figure 5

Figure 5

Long-term dimensions



**Note:** Result, MicMac Software

The long-term dimensions are detailed in Table No.9; in bold, the key variables are highlighted.

Table 9

Long-term dimensions

| Dimensions               | Variables                |
|--------------------------|--------------------------|
| Training                 | <b>MEFI</b>              |
|                          | <b>Entrepreneurship</b>  |
|                          | Curr                     |
|                          | Agreements               |
|                          | Volunteering             |
|                          | ABP                      |
|                          | <b>Integ. MC</b>         |
| Management               | Events Ac.               |
|                          | Proposals                |
|                          | Policies                 |
| Linkage                  | Networks                 |
|                          | <b>Multidisciplinary</b> |
| Environmental management | Local agenda             |
|                          | <b>Diffusion</b>         |
|                          | <b>Mkt. USR</b>          |

**Note:** Results, MicMac Software

## Training

An educational model for comprehensive training (MEFI) with six axes: social responsibility, flexibility, innovation, internationalization, learning-centered education, and competency-based education.

The university has initiatives that allow me to develop innovation and social entrepreneurship actions.

The integration of external social actors in the design of curriculum maps (CM)

## Linkage

People from different specialties participate in community support projects.

## Environmental management

It uses its marketing campaigns to promote social and environmental responsibility issues.

Among the variables with high incidence and dependence, the key variables represent 38% in the training dimension; in management and research, none; in linkage, 67%; and in environmental management, there is a key variable.

On the other hand, in the prospective analysis, it is observed that the environmental management dimension is not so significant in the study, according to Coppari (2016) cited in (Condori & Reyna, 2019); in his study carried out at the Autonomous University of Asunción, Paraguay, he points out that students perceived that university social responsibility was weak in terms of caring for the environment, at the level of Latin America there is no defined environmental awareness.

In the present work, extension, also known as linkage, is considered both a short and long-term dimension. The study by Vera et al., (2014) statistically demonstrates that teachers are in complete agreement with the exchange of knowledge between the university and its environment. Through community activities, social bonding is encouraged, allowing popular wisdom to recirculate scientific knowledge. In addition, participation in work projects involving community organizations favors learning.

## CONCLUSIONS

The time horizon of university social responsibility shows that the environmental management developed by universities in the short and medium term does not generate impact; since actions related to the environment generate long-term results, for example, the accumulation of waste is not solved immediately, it requires a whole waste management process.

In the medium term, the linkage dimension does not have any effect on USR; this is due to the new vision that is being given from accreditation models to this dimension since it must be articulated with applied research. In the present study, the research and management dimensions do not contribute significantly to USR in the long term; it may be due to factors that need to be studied in depth.

From the analysis carried out, it is concluded that the agreements are very significant for the University to assume its fundamental role within USR; it allows it to anchor teaching, linkage, and research to the organizations that require its help; and, in this way, change the region of influence of the universities; finally, we must remember that these results should never be taken literally; the purpose is to reflect on the future of the system under analysis.

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