

**MANAGEMENT OF RESEARCH LINKED TO UNIVERSITY SOCIAL RESPONSIBILITY**Andía Valencia Walter ¹**E-mail:** wandiav@unmsm.edu.pe**ORCID:** <https://orcid.org/0000-0002-4122-3820>Cruz Shuan Reyna Luisa ¹**E-mail:** reyna.cruz@unmsm.edu.pe**ORCID:** <https://orcid.org/0000-0003-4466-0257>Villena Presentación Ricardo ²**E-mail:** rvillena@unfv.edu.pe**ORCID:** <https://orcid.org/0000-0002-4858-8267>Ventura Rosas Maritza Ruth ¹**E-mail:** mventurar@unmsm.edu.pe**ORCID:** <https://orcid.org/0000-0002-2459-9818>Álvarez Díaz Ezzard Omar ¹**E-mail:** ealvarezd@unmsm.edu.pe**ORCID:** <https://orcid.org/0000-0001-7313-0533>¹ Universidad Nacional Mayor de San Marcos. Perú² Universidad Nacional Federico Villarreal. Perú

ABSTRACT.

Society is constantly facing changes; this leads organizations and the population to recognize the new social scenarios in order to adapt their actions. In this context, the link between the university and its environment is essential, as it allows the interrelation of the problems that arise in the different interest groups with one of the core functions of universities: research. This article systematizes the interrelation between research and university social responsibility (USR). The research is of a theoretical-descriptive type, and is based on a review of specialized sources that supports the analysis and conceptual development. It is concluded that it is necessary to manage research within the framework of the USR approach in the generation of knowledge, results, dissemination and application of knowledge.

Keywords: Research; Social impact; University social responsibility; research management; knowledge.

INTRODUCTION.

The academy of the XXI century faces the challenge of proposing solutions to the urgent problems that society demands. Because of this, it is necessary to undertake changes from the administrative, academic, curricular, research and social projection processes, so that such processes lead to a rating of Excellence of the educational service and generate effects on the development of society. In this sense, it is relevant to conceive a prestigious and recognized university both nationally and internationally, capable of adapting to the rhythm of educational trends and globalization. (Hernández-Arteaga et al., 2015; Quiroga Pacheco, 2017).

This applicative context has a notorious impact: the university distances itself more and more from academicism and elitism, in a way that ignores conservative and traditionalist positions in social representation. Their role in the system of social institutions has improved; It permanently assumes new challenges and difficulties in the face of current access and financing requirements. The accreditation process and scientific work must ensure the mission of higher education: to provide solutions to social problems through the use of knowledge, since it is possible to notice improvements in the community (Martínez & Fernández, 2022).

The above implies how imperative it is to continuously review the expectations of society to prevent the university from losing its direction and deviating from its main objectives, since "it cannot and should not remain outside the

need of the society that maintains and promotes it, therefore has a moral obligation to its environment" (Duque & Cervantes-Cervantes, 2019). With Based on the above, debates and forums that unveil and present the proposals are important. (Quiroga Pacheco, 2017) with the aim of encouraging the sense of bidirectionality of its performance.

An institution of higher education takes responsibility for interpreting its environment appropriately in order to identify ways in which it should use its knowledge and capacity to act and serve its community. The conceptualization of university social responsibility is subjected to the process of permanent change and is continuously built through interactions between the university and society. These must know how to enhance knowledge, experience and exchange, as well as social sensitivity (Lopez, 2018); The main objective is to facilitate social cohesion.

Training, research, social leadership and commitment are fundamental factors that shape the university-society relationship, so that its social impact is effective, a fair, equitable society is achieved and, above all, with human quality. The university, assumed in these terms, plays a preponderant role in the construction of knowledge and its subsequent application in search of solutions that benefit society (Leyva Vázquez et al., 2021).

The results derived from the research should be presented in a language understandable to the community and interested groups, in such a way as to inform about their benefits. (Africano & Reatiga, 2018). With this, the university would achieve "socially responsible behavior and contribute to the positioning of its technological management, through the management of quantity and quality of research that reinforces the relationship between university-social environment, in addition to the development of technology transfer programs " (de Carrasquero et al., 2012, p.515).

Actions are necessary, because society demands them; however, universities still fail to adequately manage their research. Within the framework of this potential interrelation between the university and society, still in its infancy, the objective of this study is to analyze the link between research and university social responsibility from a management perspective.

METHODOLOGY.

Under a qualitative approach, it seeks to support the information through the documentary review of both printed and electronic sources of the entities themselves, official web pages and databases in indexed journals. Starting from a Latin American context to focus on Peru.

During the development of the study they use the following:

- Inductive - deductive method: This method is applied during the assessment of the relationships between research management and university social responsibility, so that the links between them can be determined. The use of the deductive method facilitates reasoning that starts from a general frame of reference towards the most specific elements. The inductive method works in the opposite way; That is, it starts from the most specific to generate broader theories. It also allows to direct the elements raised according to the logical reasoning for the subsequent ruling of conclusions.
- Analytical-synthetic method: This method is applied when progressively organizing the information obtained and analyzed during the development of the study; taken into account mainly in the formation of a theorist and state of the art of the subject analyzed. The synthesis made it possible to gather a wide range of relevant and relevant information for the purposes of the study and to synthesize or simplify it for better representation and understanding.
- Historical – logical: This method is used to know the fundamentals of the subject taking into account its trajectory and certain perceptions about how it will be in the future. The logical interprets the historical and infers in the conclusions. This method is used as support in the reality of the subject analyzed, comparing ideas from past studies with the current reality, in order to structure the proposal.

RESULTS AND DISCUSSION.

Research management with a USR approach.

In the field of higher education, it is necessary to propose a precise vision of the role of the members of the university community in relation to the development of the community. The process requires teachers and students

committed to research; However, it is also relevant to link university activities with the context of territorial reality. In other words, it is about analyzing the social, economic and cultural components, in addition to the space that promotes values such as equality, inclusion or citizenship. (Garcia-Jimenez, 2016).

Additionally, experience in academia has shown that promoting research in students in community settings involves reinforcing research skills: information seeking, critical thinking and social engagement. For this reason, it is essential to participate in joint interventions with different actors, since this strengthens sensitivity to the problems of their territory.

In this context, it is recommended to articulate the function of social projection of universities with their research mission so that all members are willing to participate in the production of knowledge for the benefit of the development of society. The change in the management model in universities forces us to consider interest groups, no longer as simple aid or support agencies, but as entities that contribute to the generation of knowledge: universities inevitably join this process.

From a transdisciplinary perspective, a change is needed that inclines universities to move beyond research limited to hermetic or isolated disciplines. Therefore, universities should promote spaces for researchers to communicate with each other, this to acquire a broader vision of the fields of knowledge and a better understanding of disciplinary interactions, and to respond to research problems that increasingly pose greater complexity.

According to what has been sustained, the relationship of the University with its internal and external stakeholders will allow better collaboration between the different actors; That way, the results of the research will reach those who need them. In this process of interrelation, based on university social responsibility, the University's commitment to society is evident. (Africano & Reatiga, 2018).

University social responsibility is rethought differently from a set of actions subordinated to university dependencies whose function is atomized and dissociated from university policy in broader terms. In this way, social responsibility is understood as "A strategic approach to institutional management that allows synergistically linking the basic functions of the University to improve its internal performance, create better citizens and strengthen the interrelation with its stakeholders from a holistic and sustainability perspective" (Andia Valencia et al., 2021).

Therefore, it must be included in the vision of any university institution and guarantee the support of its authorities in its implementation. In this way, the results are reflected in the Plans of Studies and in extracurricular activities so that Continuously improve academics and skills development. It is intended that the contributions of the University are relevant and consistent with the needs of the community (Bokhari, 2017). This favors the development of the research, disseminating its findings and making recommendations with one High degree of veracity.

University social responsibility thus becomes a strategy to achieve transdisciplinarity. In this way, teachers-researchers are encouraged to project themselves in the practice of this new conception in order to seek, in a creative way, global solutions to the territorial problems of the country. Together with this, the possibility of extending to other territories is obtained.

Thus, all of the above considerations must be properly managed. To achieve this, the institutional commitment; that is, it is necessary to incorporate the USR approach in the institutional strategic plan and its articulation from the institutional management to the plans of the research area, policies and research groups (Africano & Reatiga, 2018).

The incorporation of the USR approach in research has a more noticeable impact than responsible research (conceived as the application of methodological and ethical criteria in the processes of knowledge generation towards obtaining results), because it implies the dissemination and application of the results obtained in stakeholders according to their needs and their contextual framework, as shown in Figure 1. It is important to highlight that the proposal developed stands as a reference for all types of research, without implying the consideration of certain research methodologies.

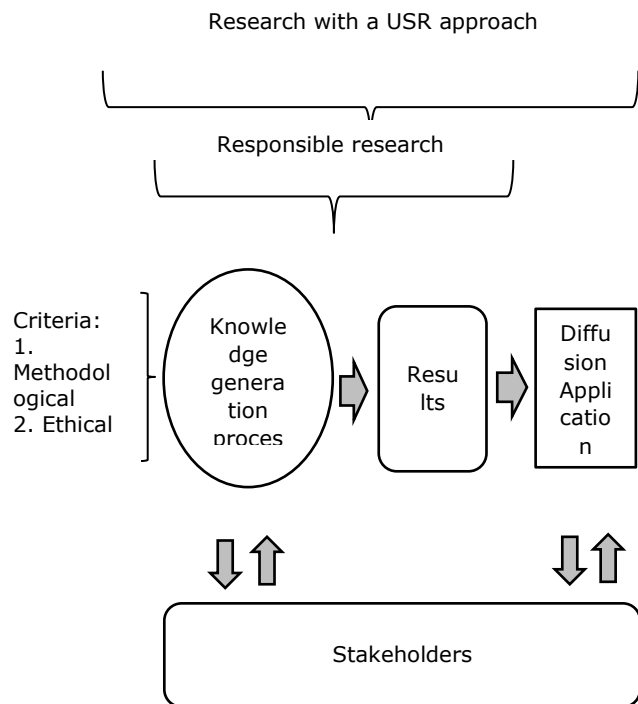


Figure N°1 Research management with aUSR approach.

Dissemination of knowledge with a focus on MSW.

In research processes, by identifying problems in collaboration with the community and organizations present in the field of intervention, opportunities are created for students to learn and build knowledge through research. This knowledge, conceived synergistically between the University and society, must be transferred directly to the population and indirectly to the organization, since it is the latter that is responsible for disseminating the results by other means.

Based on the above, it is not a good idea to go to a community just to do research work without committing to provide the results obtained to community members. Likewise, the report will be irrelevant if the participation and reflection of the community regarding the findings are non-existent. It must be disseminated accurately and effectively.

If the work has no impact on the population, the effort will be in vain; In other words, it must be useful for the continuous improvement of the community. It is important to note that, as researchers, it is necessary to observe that the work done is far from consisting of publication in impact journals, since recognition is required about what is being achieved from the results of the research. (Perines Véliz & Murillo, 2017).

Therefore, it is usual in universities that, once the results of the research have been obtained, the next step is to communicate the knowledge through publications (scientific articles, books, presentations at congresses, among other documents); These are generally written in a specialized language and the target audience is mainly the academic community.

In the MSW approach, this is not enough, since it is also necessary to socialize it in the community or organization that goes through the problem or the reason for the research. (Orozco-Ugarriza, 2016); This allows to obtain improvements in the quality of life of the beneficiary community. In this way the University would be fulfilling its role with society. The aspects covered are summarized in Figure 2.

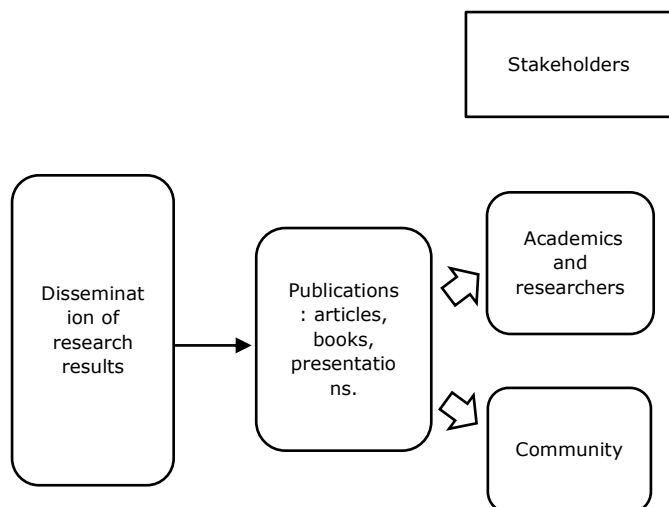


Figure N°2 The dissemination of knowledge, results and their stakeholders

Application of research results with a USW approach

The Universities, to develop their social role, need to fulfill the commitment of establish Relations with the organizations in your environment. The result of this link is the generation of learning with great value, both for teachers and students and for the community. Likewise, this knowledge must be implemented in their territories. in order to provide answers to the problems from a more practical, concrete, operational and direct perspective in their field (Ruiz-Corbella & López-Gómez, 2019).

According to what has been argued, the interpretation of the application of research with a USR approach presupposes the interaction and action between the university and society. The application of research results can be presented in two ways: technology transfer aimed primarily at public and private organizations; and social appropriation of knowledge, with emphasis on community populations, as shown in Figure 3.

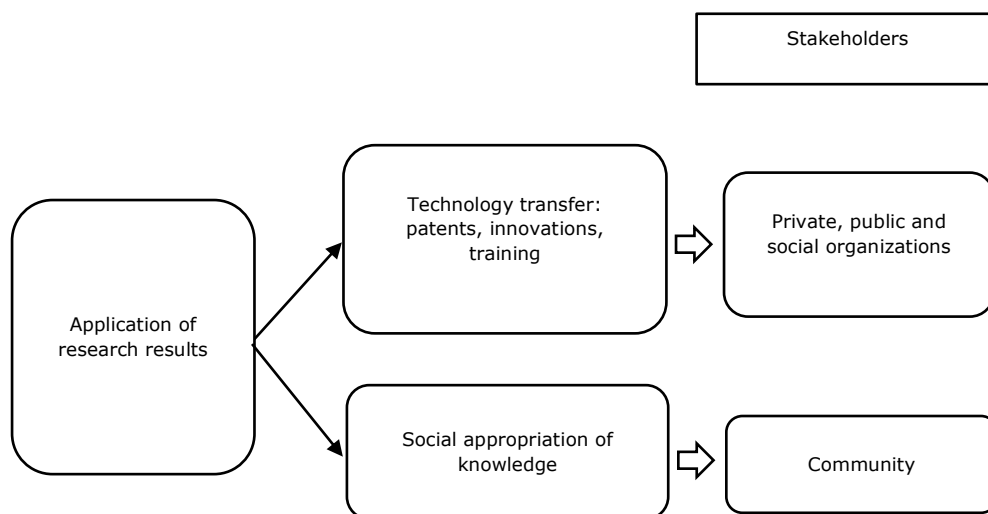


Figure N°3. Components of the research application.

Technology transfer.

Higher education institutions must assume the responsibility of contributing to scientific progress, social welfare and economic growth of the territory in which they develop. In this sense, within the framework of their competences, it is necessary to identify the appropriate processes to create and transfer knowledge of social and economic value to the community that supports them. (Arechavala Vargas & Sánchez Cervantes, 2017).

One of the ways to derive knowledge to stakeholders is through technology transfer processes, which must be immersed in social reality and jointly consider the actors of the environment in which they are located. (Africano & Reatiga, 2018). In addition, the knowledge developed addresses the needs of technology gaps and contemplates disclosure in an accessible way (Delgado, 2017).

In accordance with the above, technology transfer refers to one of the forms of linking the university with its environment, since it consists of allowing the implementation of the knowledge obtained from research to favor those who need it: generally, these are private organizations, through the provision of services, products, continuous training programs and technical assistance.

Sira & de Roberti (2015) define technology transfer, in a complementary manner, as: Complex and interorganizational process that establishes a multidirectional flow of relevant technological knowledge incorporated in objects, records, people and institutions, efficiently and effectively, between an entity, organization or agency offering and a recipient; generated exogenously or endogenously, concretized in an empowerment by the receiver that allows him to transform it and thereby generate more knowledge. (p. 964)

That is, technology transfer implies the participation of stakeholders associated with these processes; Generally, these are business organizations, since they are the ones who demand new technologies. The products generated as a result of the process described are technological innovations, patents and consulting services.

Due to the above characteristics, technology transfer processes demonstrate the social commitment of universities, since they incorporate problems of organizations and strengthen the link between all stakeholders; As such, it can be considered as an indicator of relations with its environment (Africano & Reatiga, 2018). Accordingly, within the framework of USR, not only the economic benefits of technology transfer should be considered, but also the social impacts generated in society.

Social appropriation of knowledge.

The results of the investigations, to a large extent, are subject to bibliographic consultation, since they have no repercussion or impact beyond the use in a library. For this reason, it is recommended that universities facilitate dialogue with actors and communities so that they use the results as input for the collaborative processing of the problems identified. (Moreno Moreno & Aguirre González, 2018). Likewise, it is necessary to develop relevant strategies based on the most open dialogue, to use the knowledge generated as an input in the process of its incorporation into the scope of the territory studied.

Based on the above, research should avoid ending with the publication of an article aimed at an academic audience; rather, knowledge must be applied in a context where the population that demands such knowledge is located through simple language; Only in this way will the set of activities allow assimilation by society (Orozco-Ugarriza, 2016).

So, for the typology of interventions that require the implementation of knowledge, the incorporation of the social appropriation of knowledge is necessarily required. This refers to research that, once completed and with the knowledge obtained on a given topic, is sensitive to application in stakeholders; That is, they contribute to communicate (common doing), which is precisely what is projected towards society. What it does is transfer, foster a society that is richer and more diverse in knowledge.

While it is true, the application of knowledge is characterized by a lack of economic remuneration; However, it encourages the balanced development of the territory based on knowledge. Thus, research assumes the social appropriation of knowledge as the democratization of access and use of scientific and technological knowledge, which seeks its adequate transmission and use among the different social actors, which will lead to the improvement of the quality of life of the communities and their members. (Becerra et al., 2015)

It is important to note that knowledge transfer is relevant and valuable to the groups that make up the community that need it. Thus, the transfer develops in two directions: towards the communities whose needs will be met and towards the students who will develop the skills and competencies required for their integral formation.

Here the research that develops the product or the prototype is also incorporated so that it is delivered in donation to the interested parties; Such is the case of the design of a virtual platform in health.

Modalities of the application of knowledge.

In general, the application of knowledge in the interest groups of universities is carried out in two ways:

Independent application: It is presented in cases in which the organization develops knowledge implementation activities directly to stakeholders. Here, the activities and resources required are funded by the university, although partnerships can be formed with organizations to facilitate participation. For example, training in aquaculture issues for people in the jungle area is important.

Joint application: It consists of the implementation, executed by the university, of the knowledge obtained in partnership with other public and private organizations, and it is the latter that finance the product development activities, the required inputs, the transfer of people, among other needs.

Both modalities of the application of knowledge are important and necessary, since they allow a consistent link between the university and its stakeholders, as outlined in Figure 4.

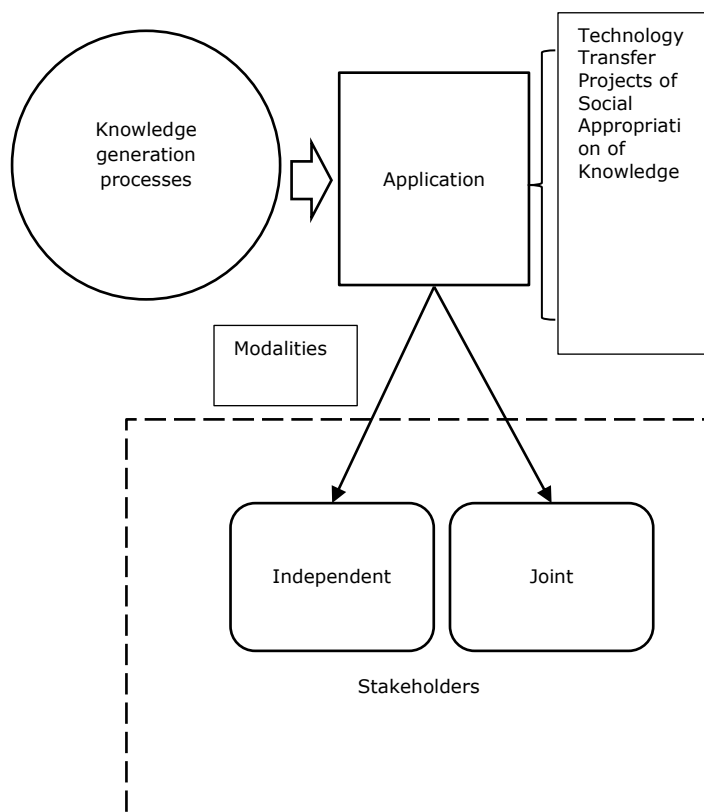


Figure N°4. Modalities of the application of knowledge.

Social impact of research.

The investigations usually culminate when the respective reports are made, articles are published, these are supported and all kinds of documents are managed. However, a perspective of contribution to society is necessary, from the scientific impact and is analyzed mainly by reference to these documents.. Based on this and in response to the needs of the community, research results must transcend the inaccessible documents produced by universities; In this sense, they must be disseminated to subsequently achieve their timely implementation for the benefit of stakeholders: this process is very important to achieve research with social impact (Orozco-Ugarriza, 2016).

For Hernández-Arteaga et al. (2015), research with social impact consists of contributing to the improvement and development of the quality of life of the community, based on the academic training of professionals and the construction and application of new knowledge. In the current context, it implies that the University transforms society based on the quality of management and the adequacy of the functions of the university framed in MSW.

Therefore, social impact occurs when scientific knowledge that has been produced, published, and transferred to society and its institutions has a positive effect on their change. Therefore, impact expresses a measurement of the university's performance in the medium and long term from a research function perspective.

Another complementary aspect of the previous support is the characterization of the supply of knowledge in exclusive terms of quality. However, it is not enough, since it is a task that requires specifying under what criteria this category is assigned and how quality is linked to social impact. Similarly, it is relevant to analyze the applicability of research to the priority needs of the community, as it is fundamental and necessary as a dimension of the quality of research.

Within the framework of university social responsibility, internal change in research management is encouraged in order to generate impacts on society (Ortiz-Paniagua et al., 2021). This implies that research professors will be the main drivers of social impact in community, national and international contexts. However, this task involves multiple agents, since both university authorities and students must be concerned about the social impact of the results of scientific research. At the same time, it is reasonable that the main beneficiaries of these findings (society, companies and officials in the region) constantly express a clear interest in the successful application of the achievements of science, technology and the humanities, as in this way the quality of life of a given population will improve.

Consequently, it is considered important to highlight that the social impact of research should be measured through dissemination, technology transfer and interventions for the social appropriation of knowledge. This implies the need to include USR in the framework of university management policies, since only in this way will there be a real impact of institutional actions on society.

CONCLUSIONS.

The processes that link the functions of the University with the problems of society are essential. This is especially important in research, since its objective is to interpret the environment and provide new proposals of knowledge applicable to society according to participatory strategies and with the interaction of different disciplines.

University social responsibility, as a management approach that enhances the link between research, academic training and social extension, also allows universities to develop an integrating role of their functions internally and an adequate link with the environment.

The management of research with an approach that contemplates the USR establishes a reference framework for linking the research function of the University with the problems of society. Together with this, it allows defining guidelines for interaction with stakeholders in the generation of knowledge, results, dissemination and application of knowledge.

Research within the framework of USR generates social impacts in the community, both in the dissemination and application of knowledge, since the projects of social appropriation of knowledge constitute a novel proposal for socialization of research results in the interest groups where the studies were developed. 2, 6,8,11,13,15,20

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