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Community Liaison as Factor for Image and Positioning of the Autonomous University of Baja California, Mexico, in the Social and Productive Context

La vinculación como factor de imagen y posicionamiento de la Universidad Autónoma de Baja California, México, en su entorno social y productivo

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Abstract

This study presents the results of an extensive research on the society's perceptions of the activities the Autonomous University of Baja California (UABC, for its acronym in Spanish Universidad Autónoma de Baja California) develops in Mexico. This non-experimental research uses an explorative-descriptive methodology, with a transactional research

design based on a holistic method and an illuminative evaluation, which analyzes the institutional positioning of UABC in several social sectors, as well as its determining factors. Results support the hypothesis that liaison activities have a significant effect on the regional positioning of the UABC as a higher education institution. The results also helped to identify weaknesses and opportunities that could direct future institutional efforts. In addition, this study provides new elements on liaison, institutional image, and positioning, as well as a conceptual model that involves these variables.

Key words: Outreach, institutional role, higher education institutions.

Resumen

Este trabajo presenta los resultados de un estudio realizado en extenso sobre la percepción social del quehacer de la Universidad Autónoma de Baja California (UABC), en México. Se utilizó una metodología exploratoria-descriptiva, con diseño de investigación no experimental-transeccional basado en el método holístico y la evaluación iluminativa, que permite analizar el posicionamiento institucional de la UABC ante los diversos sectores de la sociedad, así como sus factores determinantes. Los resultados sustentan la hipótesis de que las actividades de vinculación influyen significativamente en el posicionamiento regional de la UABC como institución de educación superior, y se identificaron debilidades y áreas de oportunidad que podrían orientar los esfuerzos institucionales futuros. Adicionalmente, el estudio aporta nuevos elementos sobre los temas de vinculación, imagen institucional y posicionamiento, así como un modelo conceptual que contempla estas variables.

Palabras clave: Vinculación, rol institucional, instituciones de educación superior.

Introduction

The Autonomous University of Baja California (UABC for its acronym in Spanish) is a higher education public institution decentralized from the State administration. UABC has full legal capacity to perform its three main substantial functions which have the objective of providing higher education to train professionals, as well as promoting and conducting scientific research focused mainly on state and national issues (Congreso del Estado de Baja California, 1957). The economic resources necessary for the University to function are obtained from the federal government (44%) and the State government funds (32), they are complemented by the resources obtained by the own institution (24%).

The UABC educational model is flexible, innovative, and proactive; it is student centered also. It trains professionals with the necessary skills, aptitudes, capacities and principles so that they can develop within the different academic fields. Liaison activities are directed to promote a multidirectional and inclusive system between the University and the community, which supports research, teaching and continuous education, through the application and generation of knowledge, technology transfers, as well as consulting, training, community services, among others.

Within the university, UABC has promoted liaison activities as part of a dynamic and flexible action framework, based on principles of equity, relevance, and pertinence, in order to support international, national and international community sustainable development (UABC, 1999). Nonetheless, efforts directed to this objective are not enough to fulfill the expectations of the community of Baja California. Some internal factors that have affected the achievement of the objective are the omission of liaison activities within the institutional structure and the lack of formal norms to regulate and organize liaison actions (UABC, 2001).

Nowadays, the general opinion is that there is a need for Higher Education Institutions (IES, for its acronym in Spanish Instituciones de Educación Superior) to strengthen liaison activities between them and their social environment. Since actions taken within the institution are still insufficient (which discredit its social value and prevents the institution from taking advantage of collaboration opportunities with great potential impact on local and regional economic development), the need to establish appropriate guidelines to support social participation becomes more evident every day. The development of those guidelines strengthens university liaisons with the community and its immediate environment (Secretaría de Educación Pública, 2001).

Despite of the public IES achievements during the last years, their image has deterred due to several factors: lack of accountability, questionings on the transparency of their use of public resources, short attention to the demand, low-level education, and, mainly, community unacquaintance with the different administrative-academic activities that IES develop.

Due to the above mentioned, The National Association of Universities and Higher Education Institutions (ANUIES, for its acronym in Spanish Asociación Nacional de Universidades e Instituciones de Educación Superior,) emphasized the need to encourage positive opinion on universities through the diffusion of relevant information about transformation actions taken within them during the last years. The objective is that the national university community, as well as the public in general can recognize the accountability mechanisms, and assess the benefits of quality of work, as well as the IES impact on the country's development.

In consonance with some studies conducted on public image, Parameswaran and Glowacka (1995) suggest that universities' general image contributes to the perception of their own characteristics. According to the authors, it is important to develop research studies on universities to identify their image and develop strategies for their positioning and repositioning.

In addition, information gathering indicated the scant relationship that exists among *liaison*, *image*, and *positioning*, within the higher education context. From here, the proposal to develop a research centered in liaison activities as variables that influence on institutional image as well as positioning arises in order to obtain elements that lead to the design of a conceptual model that provides strategic development lines to favor the repositioning of UABC.

This research intends to contribute with new strategies and mechanisms that define different characteristics than those that are traditionally ascribed to liaison, such as those related to image and university positioning in its environment. New characteristics can be referents to improve continuously IES administrative processes.

Once the importance of liaison activities is identified, considering they are factors for the positioning of the university within its social and productive environment, the following hypothesis is sustained: The institutional image perceived in and out of the university, specifically the image of liaison, significantly influence the positioning of the UABC.

This approach coincides with the hypothesis held by Parameswaran and Glowacka (1995), that defines the general institutional image as the addition of several individual characteristics, which when transmitted to the outside, establish the institution's positioning or location in the community within a limited context (Álvarez, 2000; Gallo, 2000).

Consequently, this research introduces mechanisms that lead to a new positioning of the University through organized initiatives that determine the role of liaison as a device that fosters and favors a synergy inside the institution, through the main functions, and in the outside through society sectors. This would provide a greater understanding on the university activities and would favor the good assessment of its characteristics by the society, which would reduce the gap between community perception and the institutional current position.

This research consists of five sections which include the following activities:

1. Discussion of theoretical considerations which are important for liaison activities within universities.
2. Establishment of theoretical relations that regulate the debate on institutional image and positioning.
3. Discussion of institutional image and positioning factors related to liaison.
4. Explanation of statistical methodology used to contrast the analysis hypothesis to some research results.
5. Presentation of conclusions and discussion of some recommendations.

1. Theoretical Considerations

1.1 Liaison

The importance community liaison has acquired during the last years within the educational discourse has resulted in different positions and conceptions about this university, which some authors compare to the status of the substantial function of the university (Dagnino, Thomas & Davyt, 2000).

It is important to emphasize that the relationship established between the university and the community is conceptual, and it is important to have a clear idea of what is considered relevant, in order to be able to identify the risk of falling into the irrelevance that threat institutions. Also, there is the need to understand that inside the university, every area has an obligation to be at the service of the community and its needs (Martínez, 2000).

It is for this reason that liaison is considered a process where academic and community activities interrelate permanently and generate knowledge and solutions to the nowadays and future social issues; besides, these activities guide, feedback and improve human resources training programs, scientific research, as well as technological and cultural development (Castañeda, 1996). In this way, liaison can be recognized as a strategy that allows institutions to strengthen their processes of academic development and the quality of their services (Pallán, 1997).

The liaison of IES with productive sectors contributes positively to students' and professors' training and update; the solution of local, regional, and national problems; faculty pedagogical training; process innovation and improvements, as well as effective insertion within the cultural and community life (De Armas, 2001).

On the other hand, UABC defines liaison as a policy for the development of a multidirectional and integral system which connect the institution with its environment to support the constant flow of academic, scientific, and cultural products and services. The foundation of such system shall begin with a dynamic and flexible action framework, which concentrates on the principles of equity, relevance, and pertinence, in search for sustainable development (UABC, 2001).

The most general conception of liaison relates it to business and the productive sector, but leaves aside the wide range of possibilities that the social sector offers. This trend is related to the fact the educational and productive sectors are economic and social development drivers; thus, an effective liaison between both, based on policies of organizational change, the search for knowledge pertinence, and the development of skills, is the key for the country's integral and sustainable development. It is necessary to understand liaison as an integral relationship between IES and the community, so that fields of knowledge at the IES contribute to society (ANUIES, 2000).

In order to integrate an efficient professional training system, it is of considerable importance that the sectors involved keep communication channels, because this liaison is the key between education institutions, the social and productive sectors, besides professionals (Covarrubias, 1996).

Nowadays, most of the universities agree on the importance of setting liaison relationships with their community, as well as performing their functions inside and outside the university facilities. In order to do so, the support of the community is necessary, whether to orientate or watch for these activities.

1.2 Institutional Image and Positioning

The ability of universities to face the current changes and make the most of opportunities the new community circumstances present, will become greater as they are provided with adequate infrastructure, enough funds to subsidize their institutional development, and ensure the social compromise that identifies them; only then will they be recognized by the community they serve to.

One of the UABC institutional policies considers the idea of establishing actions that help to get state, regional, national, and international positioning, as a result from an enhanced institutional image and its ability to relate to the social and productive sectors (UABC, 1999).

Thus, the legitimization of image and positioning management refers to a complex institutional responsibility, upon which the university has the obligation to train professionals, foster and conduct scientific research, extend cultural benefits, and fulfill the demand of the society and its environment.

Image is considered a strategic asset that becomes more important every day. Companies and institutions have discovered that product advertisement is no longer enough and that it is necessary to portray a comprehensive and credible image (Costa, 1997).

While positioning is a concept linked to image and association except that it also involves a context framework that refers to other product or service competitive rivalry. Thus, positioning is the space or *niche* in the clients' or customers' mind, the objective has a permanent connotation.

1.3 Relationship between Liaison, Institutional Image and Positioning

Generally, IES undergo changes with the purpose of creating a positive image or getting certain positioning, they do this for the same reason that other organizations do, because all of them need from positive opinion in order to develop. Doing a good job is not enough; it is essential to convince the public in general, which translates into a series of benefits for the university (Albrighton and Thomas, 2001). For that reason Rowland H. (1986), cited Pullman, and stated that the work of fostering complete understanding and significant support to the institution, should start at the core of the same institution: trust must be sought, as well as understanding, appreciation and value within it.

Within the literature revised, there are cases where a successful liaison with different sectors —social and/or productive— resulted in an improved image and positioning of the IES. For example, in Canada, thanks to an important government investment, all universities of Quebec established departments that facilitated and foster the liaison between universities and companies (Villiers, 1997).

Arellano and Ortega (2002) suggest that most of the supporters of the liaison between the academic field and the productive sector in Mexico were inspired by

the positive effect that development as well as the use of scientific and technological knowledge generated on economic growth of industrialized countries.

If higher education social benefits are closely related to meet companies' needs or the institutions 'access to additional funding, and professional human resources training, then, said association extends to a social and community projection of the IES substantial activities.

II. Methodology

This research uses an explorative-descriptive methodology, with a non-experimental, transactional research design (Hernández Sampieri, Fernández, and Baptista, 1999, 2003) based on a holistic method and illustrative evaluation. The holistic method is defined as a collection of actions and consequences which, even when they are unknown, have a common purpose and they are organically related. Therefore, a single action can be positioned functionally in the totality of a context (Stufflebeam and Shinkfield, 1985). As far as the illustrative evaluation is concerned, it is based on a flexible qualitative methodology for the study of the context; besides, it is based on the most significant elements of the subjects under study, besides the useful value judgments and proposals centered on the objectives (Monedero, 1998).

This research study intended to specify important properties and characteristics of the subjects, groups, and communities; in addition, it searched for information on certain concepts or variables within a natural context in order to analyze them; then, assess the elements or dimensions of the phenomenon studied.

Elements that interacted with the UABC, such as its students, faculty, and administrative personnel, as well as the productive, government and general population were identified based on their relation to the categories of image, liaison and positioning for the instrumentation and administration of the illustrating evaluation (Figure 1).

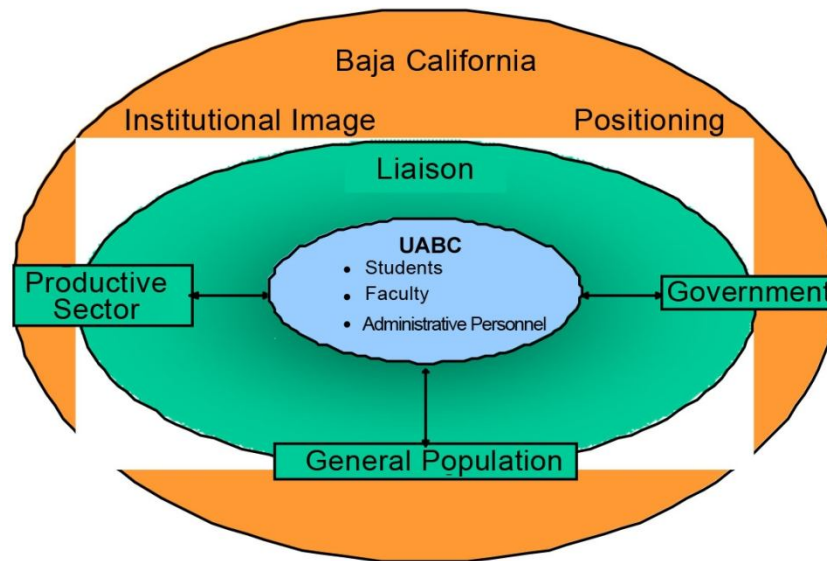


Figure 1. UABC context with the holistic method

The illustrative evaluation is characterized by the collection of information which allows adequately contributing, specifying, and describing the phenomenon's complexity and studying the problems in order to transmit the holistic impression and the context, Baja California in this case, of the categories under analysis: institutional image, liaison, and positioning.

Then, the relationship among the variables of institutional image, liaison, and positioning with the subject of study was determined, as well as his or her perception and interaction with internal and external factors, where liaison is considered a main articulator that carries UBAC correct institutional positioning, within a continuous feedback process (Figure 2).

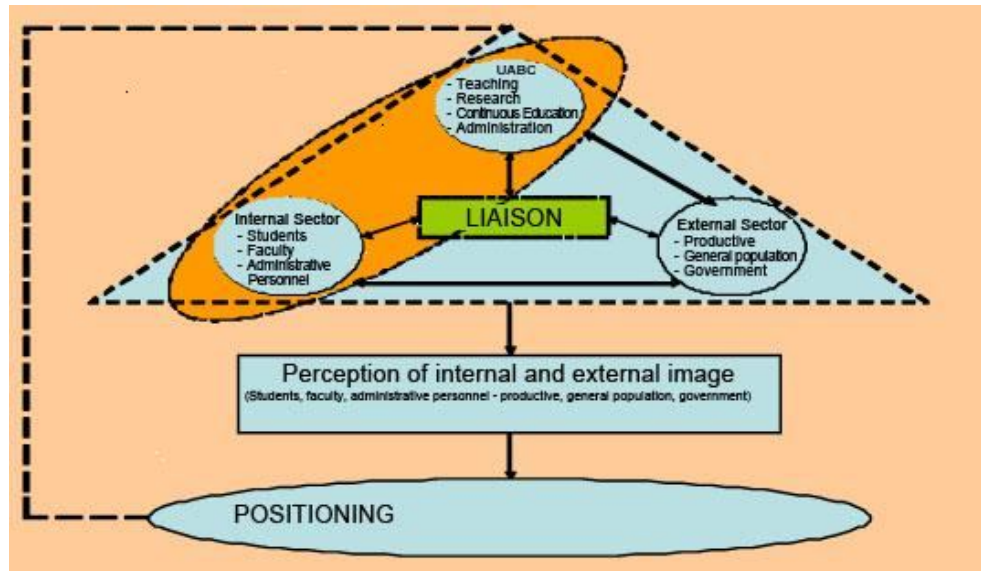


Figure 2. Liaison as a mean for institutional image and positioning

In a research of this kind, design is defined by the identification, description and assessment of variables. Knowledge on the researched field must be possessed in order to formulate specific questions that must be answered, based on measurements of one or more aspects of the phenomenon, where the subject under study identifies with or relates to a certain group or level. Also, variables are studied at one specific moment and time.

For the purpose of this research, three categories were identified: institutional image, liaison, and positioning. Baja California was the context for the research, where the subject has external interaction with the productive sector, the government and general population. Also, he or she has internal interaction with students, faculty, and administrative personnel. The objective of these procedures was to assess the impact that UABC institutional image had on its positioning (Hernández, Fernández, and Baptista, 1999, 2003; Stufflebeam and Shinkfield, 1985).

Two questionnaires were designed based on the exploratory study using group interviews. Experts in psychology, education, sociology, and administration participated in the design of the questionnaires (Grupo Andere, S. C., 2000). The integration was by sectors:

1. Internal sector: students, faculty, as well as administrative and services personnel.
2. External sector: general population, government sector, and productive sector.

The questionnaire was administered to a sample of 2,857 subjects, 1,355 were from inside the university, out of the total university population of 27,384. 1,502

subjects were from outside the university out of the total population of 2,487,367, which represents the general population, the productive and the government sector.

The size of the sample derived from the 27,384 of the university population that includes students, faculty, and administrative personnel, and who constitute the total number of subjects under study of the internal sector during the period 1999-2¹. The size of the sample was calculated by proportions, with a risk of incorrect acceptance of 3.5% and with a confidence level of 99% (Table I).

Table I. Distribution of the sample size in the internal sector of UABC

Subsector	Municipality				
	Mexicali	Tijuana	Ensenada	Tecate	Total
Students	224	170	54	11	459
Faculty	232	131	74	7	444
Administrative and services personnel	287	101	60	4	452
Total	743	402	188	22	1,355

In the other hand, based on the 12th General Census of Population and Housing of 2000 (XII Censo General de Población y Vivienda), the external sector, represented by Baja California population of its five municipalities, registered 2,487,367 inhabitants². Due to this fact, a sample of 1,503 subjects was obtained, with a risk of error acceptance of 3.3% and a confidence level of 99% (Table II).

Table II: Distribution of the size of the sample for the external sector

Sector	Subsector	Municipality					
		Mexicali	Tijuana	Ensenada	Tecate	Rosarito	Total
General Population	High Status	100	135	50	16	30	331
	Medium Status	100	136	50	22	40	348
	High Stratus	100	130	50	12	30	322
	Subtotal	300	401	150	50	100	1001
	Productive	141	192	69	23	48	473
	Government	9	9	6	2	2	28
	Total	450	602	225	75	150	1,502

III. Results

University population's opinions on the institutional perception of UABC prestige and leadership were divided when it came to how the institution declared itself publicly about issues that affect the State population. The diffusion that the University gives to the information related to students' and professors' achievements was

considered enough. In the internal questionnaire as in the external one, participants indicated that UABC had enough information diffusion on the performance of professors and students (Figure 3).

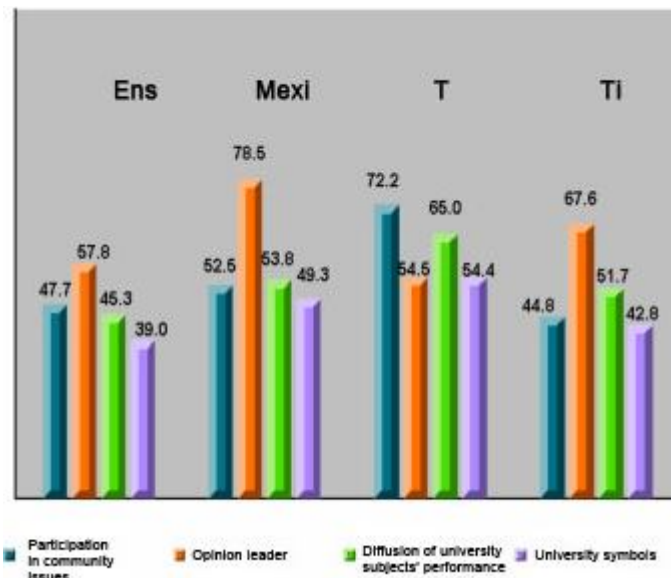


Figure 3. Perception of prestige and leadership in the internal questionnaire

The analysis showed that among subjects who belonged to the university population, the inhabitants of the municipality of Mexicali registered a greater proportion of answers favoring UABC leadership of opinion (78.5%), although Tecate registered the greatest number of favorable answers regarding institutional participation on community issues (72.2%).

On the other hand, regarding academic quality, answers showed that the indicators of *trust in the institution* had the greatest proportion in the internal questionnaire, followed by the *pedagogical model* that occupied a similar place in the external questionnaire. The external sector maintained in all cases a very similar opinion pattern to that of the university population, so it is safe to affirm that, as far as the academic quality is concerned, there was agreement between those who are part of UABC and those who are not (Figure 4).

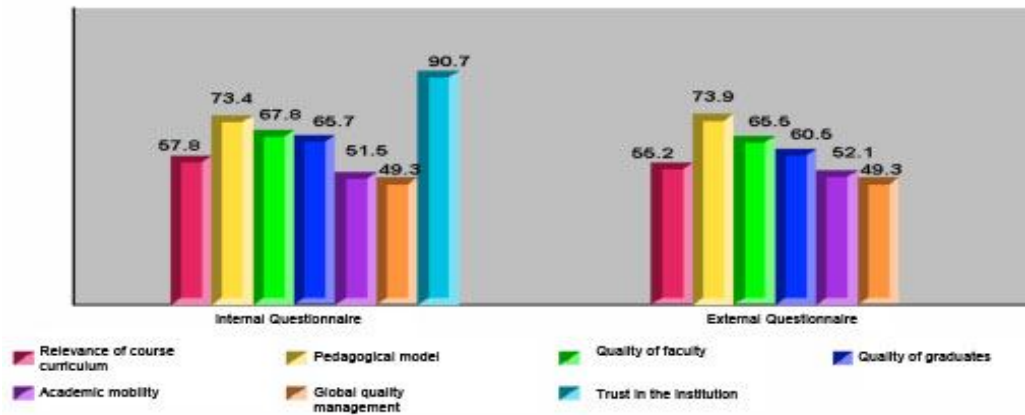


Figure 4. Perception of the academic quality of UABC

The *quality of faculty* was present in all municipalities with the same answer for both questionnaires conducted: a positive evaluation predominated. The same happened with the opinion about the *quality of graduates* from the institution.

As far as the factor of *institutional identity is concerned*, the results described in Figure 5 indicate that the university community was identified with the objectives of the institution, because 71% of the participants answered they identified with them.

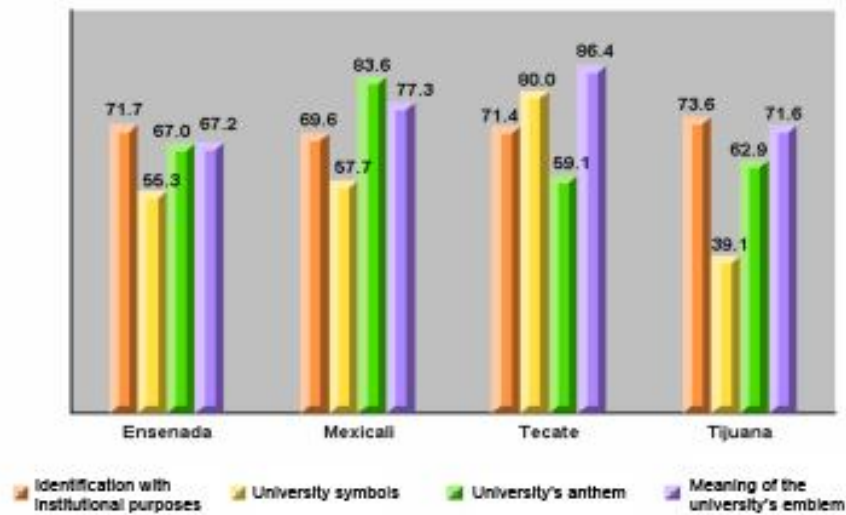


Figure 5. Perception of the institutional identity

The *university anthem* had a similar acceptance. It was placed second in the position of favorable answers, mainly in the municipality of Mexicali. The answer that varied the most was identification with the university emblem, which suggests that it is not consolidated among the members of the UABC community and it

indicates the need to systemize and regulate the use of emblems in order to improve their perception and index of remembrance among receptors.

Liaison perception results are shown according to the operative variables: *community services, diffusion and liaison activities*³ in the UABC. Figure 6 shows that the percentage of satisfied users by municipality were always better in the internal questionnaire, which indicates a different perception of those who are from the institution and have been involved in liaison activities.

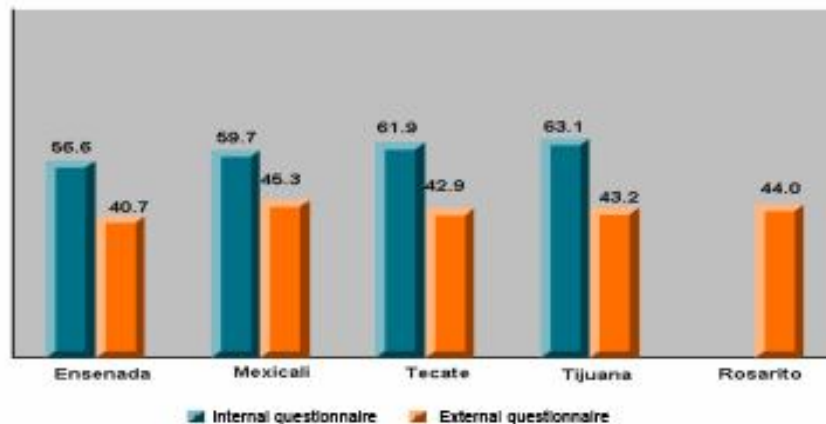


Figure 6. Perception of liaison with community services (User satisfaction)

Similarly, the results of community service by sector produced the same behavior that was previously observed. Institutional liaison activities related to the agricultural sector received a positive opinion in both questionnaires in the municipality of Mexicali, specially. In the industrial sector, the university community of the four municipalities gave the same answer that referred to the effectiveness of liaison activities. Regarding the opinion on liaison activities related to the trading and service sectors, as well as the social and government sectors, it was interesting that the only difference that outstands between both questionnaires is the perception of effectiveness in the municipality of Tecate, because the university community showed more favorable answers than the external community.

There were some noticeable differences on the perception between the internal and external population of the university, which can affect the image that university population portray.

Figure 7 shows the differences between the internal and external questionnaires for the categories related to diffusion and liaison activities, particularly collaboration with the University raffle. The university population and the external community reached similar proportions though in an opposite manner as far as the reading of university publications are concerned: it is affirmative for the internal questionnaire and negative for the external questionnaire.

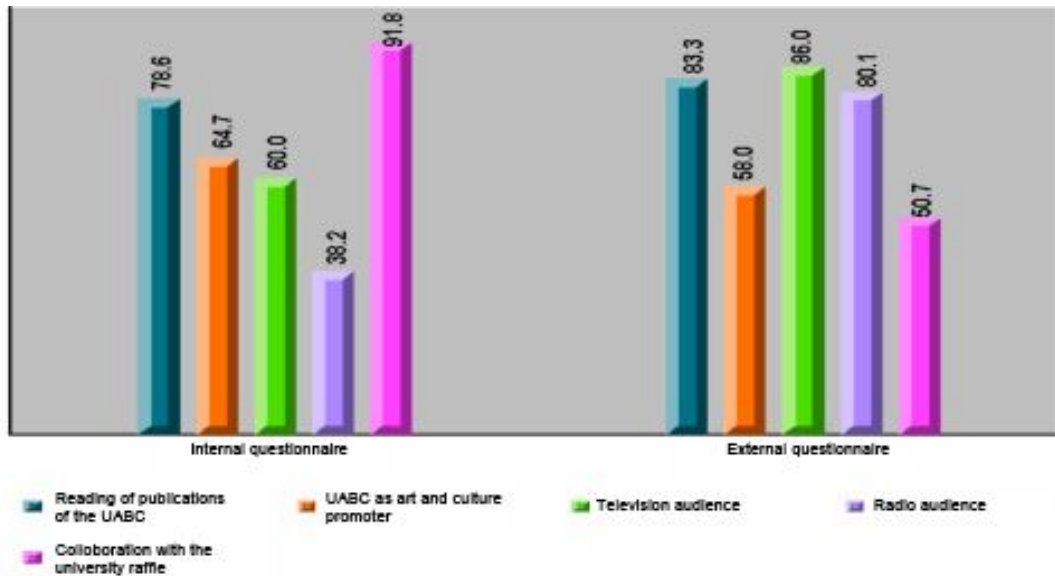


Figure 7. Perception of liaison with diffusion and liaison activities

Similarities were found only on the opinion about the role the University plays as a diffuser and promoter of arts and culture, since the university population's opinion was slightly higher (64.7%) than the one from the external community (58%).

Finally, results were organized with the objective of grouping the variables of institutional image and liaison, which consist at the same time of the operative variables of prestige and leadership, academic quality, community service, and diffusion and liaison programs, with impact in both sectors:

1. Institutional Image:
 - Prestige and leadership.
 - Academic quality.
2. Liaison:
 - Community service.
 - Diffusion and liaison programs.

Through a total sample of 2,857 observations, the contingency data was obtained and it is displayed in Table III.

Table III. Contingency table of institutional image and liaison variables

Variables of Image and Liaison	Participant Perception (Positive)	Expected Value	Participant Perception (Negative)	Expected Value	Total of Positive and Negative Answers
Prestige and leadership	2,072	2,020	785	478	2,857
Academic quality	1,764	1,368	1,093	1,092	2,857
Community service	1,847	1,711	1,010	1,145	2,857
Diffusion and liaison programs	934	680	1,923	2,177	2,857

To calculate the statistics of the test the following formula was used:

$$\chi^2 = \sum_{i=1}^i \sum_{j=1}^j \frac{(n_{ij} - E_{ij})^2}{E_{ij}} \quad (1)$$

Were n_{ij} , is the observed value (participant perception) that corresponds to the i th variable category of image and liaison and the j th column of the contingency table that denotes the type of perception (positive or negative). The E_{ij} is the expected value that corresponds to the i th category of operative variables and the j th column that indicates the expected value when compared with every observed value.

In terms of the statistics test, the null hypothesis is: "Institutional image perceived by the internal and external sectors, specifically liaison, does not significantly affect UABC positioning", and by exclusion, the alternative hypothesis is: "Institutional image perceived by the internal and external sector, in particularly liaison, significantly influence in UABC positioning".

The results show that the research statistics (470.21) exceeded the critical value of the chi-square to reject the null hypothesis (11.34). Thus, statistical evidence is sufficiently enough to reject the null hypothesis and favors the alternative hypothesis: "Institutional image perceived by the internal and external sector, in particularly liaison, significantly influence in UABC positioning".

By assessing the institutional image of the University and the perception of its liaison activities of the internal sector, which consists of students, faculty, and administrative personnel, as well as the external sector, integrated by the productive sector, general population and government, it was possible to test the impact of institutional image, and, specifically, liaison activities in UABC positioning, by contextualizing it as a subject of study with the holistic method.

This showed the influence that liaison has over institutional positioning from the perspective of the subjects under study; if it is assumed that general institutional

image is the compendium of the university's characteristics when these are known (Parameswaran and Glowacka, 1995).

To summarize, these results show that institutional image is strongly linked to the University's communication efforts and, according to Perkins (1986), a university will gain recognition and support, only when it has gained the confidence from the different audiences it depends on, so it must accept the fact that in order to gain recognition, it is essential to keep people informed.

As far as academic quality is concerned, it is important to mention that UABC had an acceptable opinion by those that answered the questionnaire. On the other hand, institutional capacity was considered an important weakness to bring academic, sport, social, artistic cultural events to internal and external audiences. This fact is relevant due to the recognition that the University should have as an integrating element of the different sectors of the community in Baja California.

IV. Conclusions and Recommendations

As a fundamental part of this research study, the hypothesis "Institutional image perceived by the internal and external sectors, specifically liaison, significantly influences in UABC positioning" was proved.

Regarding the institutional image, it is understood that university activities do not have the desirable impact on the community. This means that the lack of recognition can also be attributed to inadequate image strategies that influence the low or unsatisfactory perception level of the institution regarding its leadership within community environment.

Similarly, due to the fact that the UABC does not have an institutional image plan that guides and articulates the efforts in this matter, there is not enough information to contextualize the problem in its true dimension.

Regarding community liaison, it can be affirmed, according to the results that range from low to unsatisfactory within the data collected from the different sectors that answered the questionnaires, that there is a low satisfaction on liaison activities UABC develops within its environment. Likewise, the media resources that the institution has are not the ideal ones, since results from the questionnaires show that UABC does not have great television and radio audiences within the external and internal sectors.

The perception of community liaison based on the attention level that the University gives to the issues present within the community is unequal and with a low level of favorable answers given by the external community, this is an upsetting fact.

Despite of the fact that assessments within the State, favored in general UABC, its institutional positioning does not surpass other IES with regional or national

influence, since it is the second or third place when compared to other universities. This position is not homogenous within internal and external perceptions, the phenomenon is manifested equally in the municipal environment. The latter suggests that the presence of the University is different in the different municipalities and that there is a lack of organized and structured work concerning state image and positioning.

The UABC has started to change based on self-assessment and the external certification of its academic and administrative processes. However, there is the need of more research studies on the variables that affect the institutional positioning, and focused on the recognition of the differences between the purposes and operative methods of the institution, regarding its own needs and those of the community.

It is important to emphasize the need to restructure processes of image and community liaison that are currently assigned to the coordinators, who are part of the new university administrative structure, with the purpose of achieving a true impact in the internal positioning of the institution, and consequently in the community.

It is essential that the UABC undertakes a more active role as an opinion leader in problems that affect the community, which will provide it with a better positioning, by getting a leadership position in the public's mind. The university community shall assume the responsibility of offering solutions to these problems through relevant actions, such as: redirecting research lines to topics that affect society, fostering discussion forums with enough academic rigor to have an effect on government and politics decision making.

Likewise, the University needs to ensure quality through the accreditation of its academic programs, the certification of its administrative processes with international level standards, and the scrutiny from recognized entities in the global community.

It is necessary to establish clear rules for the faculty regarding obligations and benefits, particularly in liaison projects. On the other hand, it is their obligation to achieve a more flexible bureaucratic and normative structure in order to give quality results to the sectors when they expect them.

Constantly, administration must assess its pertinence and its quality levels, which is possible through internationally recognized systems, such as the managerial processes certification that can be sustained through modern procedures and technologies used as platforms to support the tasks of the University community.

Through this research study, a wide range of elements that support the need to consider community liaison as a strategy have been demonstrated; these elements are important so that UABC can fulfill the expectations of the community that created it, and it can be immersed within the community as a main actor. As

internal and external liaison actions are strengthened, taking into consideration the improvement of the institutional image and positioning, the University will continue to be a current driver of national development.

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1 When this research was conducted, the UABC had no extension in the Municipality of Playas de Rosarito; this is the reason why no participants were registered for the internal sector.

2 The greatest number of participants (1,193) was in the municipality of Mexicali, which is the capital of the State and where the university unit with most population is located.

3 The concept of university liaison activity is the combination of policies, criteria and promotion strategies of the university (Alcántar, Arcos, & Mungaray, 2006).