



Effective Leadership as the Driving Force of the University Social Responsibility in the Faculty of Sciences of the Administration of Saltillo, Coahuila, Mexico

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Abstract: The University Social Responsibility (USR) is of vital importance for the development and stability of the high-level study houses nationwide. Promoting the sustainable thinking of the entire university community has become one of the biggest challenges of the Autonomous University of Coahuila, Mexico and in particular of the Faculty of Administration Sciences (FCA). The main goal or objective of this study was to determine the influence that leadership and the Government Bodies (GBs) have in the USR, this last one as a main Stakeholder in the USR, focusing on the issues that the governance of the university exerts as a positive way and in those in which one must work for continuous improvement and the advance towards a new way of approaching the vision and doing in responsible subjects. The empirical investigation had an exploratory character and included a sample of 211 people who study and work in the FCA. The research instrument incorporates questions that relate to the (GBs) with the different Stakeholders. For its evaluation, contingency tables and exploratory factor analysis were used. The results demonstrate the existence of leadership and management in the development of the USR and the need for improvement in issues of promotion and involvement of stakeholders to achieve the common goal, a responsible University. It was concluded that effective leadership is a driving force in issues of USR and that the FCA suffers from an inadequate linkage and promotion of issues related to the development of Stakeholders.

Keywords: *USR, governing bodies, leadership, Exploratory Factor Analysis (EFA)*

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INTRODUCTION

About 40 years ago, and even a little earlier, the issues of sustainability of the world began to be addressed as the main points on the agendas of most countries, motivated by the degree of social degradation, economic problems and the growing impacts on the environment.

Since the 1990s, in the business world, attention to unsustainable crises that affect humanity began to be the main character, producing changes in the world order. Climate change, the destruction of natural resources, the increase of poverty and inequality are a phenomenon that are implicit in the concept of Social Responsibility (RS), a paradigm that has traditionally been defined, from multilateral instances in the first decade of the twentieth century, as a commitment that companies have to contribute to sustainable economic development in partnership with employees, their families, the local community and society in general, seeking to achieve better living standards in this way (Gasca-Pliego & Olvera-García, 2011).

In recent years it can be observed, without entering into considerations about the possible causes and motivations that explain this phenomenon, that corporate social responsibility has permeated the business fabric to a large extent. However, the same has not happened in the university field, where reflection on social responsibility is only beginning (Ball & Bebbington, 2008). So far, universities, like other public bodies, have shown a lower level of development of the concept of social responsibility in their management and information systems than companies, despite their clear vocation and social orientation (Lozano, 2007; Oetomo, 2016). A responsible University allows to open people's economic, social and environmental thinking and educate learners and educators in a responsible manner Gil-Orsorio (2012) shows us that:

According to UNESCO (2009), at the World Conference on Higher Education, one of the points related to University Social Responsibility (article 6 of the declaration) is raised, the responsibility of the universities to have long-term orientations that allow for the resolution of social needs and aspirations, inculcating this responsibility for the students.

According to the words of UNESCO (2009) cited by Olarte-Mejía and Ríos-Orsorio (2015) it is described that:

In the field of education, this concept finds its reference in the social function attributed to Higher Education Institutions, as opposed to its social commitment as a support of development and the transformation of the economic and social order of the communities that interact in the territory Company-Society-State, which implies also dealing with its ethical dimension, providing skills to its students as responsible citizens.

The sustainable University reinforces the development of the local community, the interaction with the governing bodies and the environmental concern through a responsible development program in which students, professors, administrators, senior management, graduates and the network of companies, with which the university interacts, are intertwined forming a fabric that hears and feels the social, economic and environmental concerns as a whole and from each Stakeholder feelings and common actions are reinforced to achieve a general commitment. One of the first contributions to the concept of university social responsibility (USR) was provided by the Project "Universidad Construye País" (2001), from Chile, defining it as "the ability of the university to disseminate and implement a set of principles and general and specific values, through four key processes, such as management, teaching, research and university extension, responding to the university community itself and to the country where it is inserted" (Madorrán-García, 2012; Pimonratanakan, Intawee, Krajangsaeng, & Pooripakdee, 2017).

Nowadays we are witnessing the revival of the debate about the social responsibility of the university institution. Higher education, as a public good, is the responsibility of all interested parties, particularly governments, both in their control when it comes to private initiative, and in their financing. "In contrast, faced with the complexity of global, present and future challenges, higher education has a social responsibility to advance the understanding of problems with social, economic, scientific and cultural dimensions, as well as the capacity to face them" (UNESCO, 2009).

In the works of (Beltrán-Llavador, Íñigo-Bajos, & Mata-Segreda, 2014) it is expressed "Higher education must assume the social leadership in matters to create global knowledge to address challenges associated with inequality, exploitation of the planet and human understanding, among other situations of urgent attention". Universities apply the University Social Responsibility (USR) when they take an interest in the way in which the concerned parties behave (Stakeholders) that interact with them, evaluating the participation of these parties in a strategic way to achieve competitive advantages and an education with ethical and sustainable principles, The evaluation of internal interaction between employees, government bodies and students is the first step to achieve better stability, management and university development and the basis for future growth in the other stakeholders that make up the USR. In the literature, social responsibility has not been evaluated by focusing the model on the basis of governance and leadership, the USR

is a process and as everything must be supported from the beginning by the Senior Management and the governing bodies of the University, as in the processes focused on quality management, in which the complete linkage of Senior Management is determinant, the USR must first be seen by a directive that leads and facilitates the interrelation and the best development of the Stakeholders.

It is important to know, what influence do the GOs have on the sustainable development of the University, are the GOs the ones that can decide if they are going to choose a responsible path on their part, can the influence of an effective leadership within them redirect efforts even if there are gaps in the sustainable behavior of a business school, and is the university social responsibility a management process that needs to be assimilated first by senior management? Questions like these are intended to be answered throughout this investigation.

The influence of effective leadership and the work of the GBs towards the USR that exists in the business schools of the Autonomous University of Coahuila has not been thoroughly investigated, and there is a need to evaluate the degree of development of these practices for responsible development of the university campus. There are many conditions that a University must meet to be considered its work as sustainable; these considerations appear in the regulations of the Association for the Advancement of Sustainability in Higher Education (AASHE, 2017) they set the standard to follow in order to create the foundations of a University of today.

The objective of the study is to determine the influence of Effective Leadership in the USR and its impact on the work of the GBs as one of the main Stakeholders of the USR, focusing on the issues that the governance of the University exercises/play in a positive manner and in those in which one must work for continuous improvement and progress towards a new way of approaching vision and doing in responsible subjects in a large public school of business of the Autonomous University of Coahuila, the FCA of Saltillo, Coahuila, Mexico.

LITERATURE REVIEW

The work of [Dahan and Senol \(2012\)](#) regarding the context in which higher education develops in this new changing environment tells us:

In the public sector, and in particular in higher education, the current context, characterized by globalization, the privatization of numerous universities and the greater competitive intensity among such organizations, is causing universities to adopt a business management approach that allows them to improve their competitiveness and thus guarantee their survival in a dynamic and complex environment. These arguments favor that universities, under the theory of resources and capabilities, consider social responsibility in their strategy as a mechanism that facilitates the generation of sustainable competitive advantages over time ([Atakan & Eker, 2007](#); [Dahan & Senol, 2012](#)).

Universities are institutes of knowledge generation and exchange that play a very important role in solving the world's problems, guaranteeing a sustainable future. ([Nejati, Shafaei, Salamzadeh, & Daraei, 2011](#); [Putri, 2015](#)). From this point of view it is of vital importance, the approach that the High Management and the governance of the University established as a guide for the solution of the internal and external conflicts of its interested parties orienting them to the sustainability, to an improvement in the relationships between them and to a different way of thinking about issues of responsibility in a general sense.

According to [R. G. Quezada \(2011\)](#), it is possible to identify three great perspectives or approaches in the literature to analyze the meaning and practical application of the USR:

- (1) Managerial or directive: oriented to analyze the impact of university work in the interested parties or stakeholders of universities.
- (2) Transformational: oriented to the greater contribution of the university in the debate to reach a better society.
- (3) Regulations: exchange with the society of a set of values and principles, university and socially.

In literature, it is possible to find some theoretical approaches and empirical studies on the functioning and structure of the modern university government, as an important decision-making instance within universities. In addition, there is some research on the perception of university managers regarding the meaning and application of socially responsible behavior in universities, especially in relation to the training process of future professionals ([R. A. G. Quezada, 2015](#)) According to [Chicharro, Carrillo, and Rosa \(2015\)](#):

The Social Responsibility of the University has been defined from the point of view of the impacts that they cause in the development of their activities. In this sense, and starting from the groups of impacts, we can consider a measurement model, identifying the aspects related to the USR with dimensions.

a. Organizational dimension: relating to the performance of the university within the scope of its organization and management. This dimension is also common to the university and the company. Four key factors have been identified in it: 1) Corporate Governance, 2) Economic Impact, 3) Environmental Impact and 4) Social Impact.

b. Educational dimension: relative to the performance of the university in its formative and educative function in relation to Social Responsibility.

c. Investigative and epistemological dimension: relative to its investigative function related to the areas that conform to Social Responsibility.

d. Social dimension: relative to its relationship with social agents, its participation in the local and global community, and its influence on human and social development.

The present work addresses the organizational dimension seen from a first factor in Corporate Governance and the influence that this has on the linkage and development of the Stakeholders and a second factor that evaluates how the influence of an effective leadership can move effectively to the University towards issues of economic, social and environmental improvement from an ethical perspective. The determination of the variables that influence and determine both factors through the AFE reinforces the research towards a better understanding of the sustainable dimensions of a business school of the Autonomous University of Coahuila.

Governing Bodies as a Central Link for the Development of Stakeholders

The Governing Bodies create a model of interaction between the stakeholders of the USR that confirm the internal nucleus of the University, This solid base allows a more fluid and balanced interrelation between them, which is based on mutual support and learning on sustainability issues, improving social and environmental performance within the campus, a link that will serve for continuous improvement and an ever-increasing approach to the global context outside the borders of the Universities.

In the work of [Sidorova \(2015\)](#) which frames the government-student-teacher relations is expressed:

In this order of ideas, it is noteworthy that the model of USR is very important because it seeks, above all, to motivate students and teaching and non-teaching staff to unite around ethical principles, justice, and sustainability common to all; consequently, it is important that the managers and executives of the university are committed to the legitimacy contribution to the strategy from the planning of their programs, considering the downstream effect of the management, so that the students take ownership of the concept and areas of scope of the USR and, henceforth, require socially responsible academic training; this will serve so that the students themselves will push their teachers to the fulfillment of the much broader epistemological approach between the different careers and the promotion of projects that integrate different knowledge and sciences; thus, when the students commit themselves with this dynamic of demand to their teachers and authorities, the group tends to improve.

On the other hand on this subject ([R. A. G. Quezada, 2015](#)) tells us: In this way, the perspective of the university managers on the USR acquires a fundamental role to achieve an adequate strengthening of the socially responsible behavior of the universities, because without their participation and commitment to this model it will be much more complex to move forward in their implementation. The above, because the USR will not be present in the main strategic decisions of the university, as well as organizational culture and institutional policies, hence the degree of understanding and commitment to the USR by the rectors and their management teams will be a key element.

Due to the importance of the subject for the sustainable improvement of the University, the link and development in issues of USR of the interested parties, students, teachers, and administrators, takes a particular interest in any education center. The influence of the Governing Bodies in the promotion, study, research and training in ethical issues, socially responsible and with high concern for the environment is vital for continuous improvement in issues of USR. The GBs directly influence the efforts to redirect the University's staff towards a thought that is up to the standards of our time. The consolidation of this knowledge and the internal change in the way of thinking of the interested parties will allow in a second moment to integrate this development for the social improvement of the local and regional community.

Effective Leadership and Management as a Driving Force of the USR

Leadership is the art or process of influencing people to participate willingly and enthusiastically towards the achievement of group goals ([Koontz & Wehrich, 2012](#)).

Nowadays education is characterized by a leadership focused on the pedagogical, as well as in the new professional competences of its exercise, such as what is teamwork; the requirements of the demanding environment and also the needs and academic opportunities in the workplace are linked (Avilez & González, 2015).

The university institutions played a social leadership role and based on which they must act as a learning model and practice of sustainable, human and social development. The role of leadership can be played, in our opinion, and along the lines of (Abadía, Mariano, & Martín Vallespín, 2012):

From the point of view of the impacts caused by its activity: research, teaching and management.

From the point of view of the impact of the institution, on the rest of society and its role as a social vehicle.

Senior Management should focus on generating research, teaching and management on campus to create sustainable thinking that guides all stakeholders towards a social and environmental response based on the principles of the USR; leadership is vital to serving as support and of the engine in this task. It is impossible to achieve a breakthrough in sustainable issues if there is no ethical leadership that promotes research, teacher training, the inclusion of sustainable study programs and the improvement of society that interacts directly with the university environment. Leadership must promote corporate values based on what is proposed by HKUST (2015) related to academic excellence, education with a broad focus, building competence and capacity, leadership, teamwork, international perspective, vision to the future and ethical standards.

Hypothesis

From the review of the literature, the following null hypotheses are proposed:

H₀1: The University's drive towards sustainability is not determined by the existence of Effective Leadership.

H₀2: An advance of the USR in the FCA does not depend on the influence of the GBs in the linking and promotion of topics related to the development of the Stakeholders.

H₀3: There are a limited number of variables that not identify factors that determine the leadership and management of Senior Management in the FCA.

H₀4: There are a limited number of variables that not identify factors that determine the influence of the GBs in the promotion and the linkage of the Stakeholders of the USR in the FCA.

RESEARCH METHODOLOGY

The draft of this instrument, developed by the authors, was developed based on key constructions adapted from the literature and in the technical manual STARS version 2.1 of the Association for the Advancement of Sustainability in Higher Education (AASHE, 2017), for its acronym in English, which raises the foundations for a Responsible University encouraging continuous improvement and focused on the sustainable development of universities as trainers of economic, social and environmental principles. In a first stage the instrument was modified and enriched in a Focus Group carried out by specialists of the FCA of the city of Saltillo, Coahuila, Mexico and of the North Unit that includes the schools of Administration and Businesses, located in the city of Monclova and Piedras Negras in the state of Coahuila, Mexico.

Focus groups are a data collection technique through a semi-structured group interview, which revolves around a theme proposed by the researcher. Different definitions of focus group have been given; however, many authors converge that this is a discussion group guided by a set of questions carefully designed with a particular objective (Bonilla-Jimenez & Escobar, 2017). The approach was aimed at obtaining the main variables to be included in the evaluation instrument.

In a second stage, with already discriminated variables, a tool (survey) was created on Google Form containing 11 items and sent by email to the Administrators, Teachers and Students who work and study in the FCA which have the necessary knowledge to express the way in which the University's GBs are developed in terms of USR and how the leadership of Senior Management influences to direct the University towards ethical and sustainable principles. For the development of the survey, the Likert scale was used as well as dichotomous and open questions directly aimed at evaluating the objectives of this study, previously validating its reliability using Cronbach's Alpha. In the contrast of the hypotheses, the frequency descriptors were used, which are very useful to visualize in a first approximation the results of the stated scales. The selection of the sample was supported by the requirements considered in the statistical technique used. Hair, Anderson, Tahtam, and Black (2010) indicate that statistics can not be applied correctly with a sample of fewer than 50 observations. Winter, Dodou, and Wieringa (2009) tell us that a sample $N = 50$ observations

are the reasonable minimum. The empirical investigation was applied to a random sample of 210 people made up of 184 students of Bachelor and Master's degrees in Business Administration, 17 Teachers and 9 Administrative. The 11 variables obtained were processed by contingency tables by contrasting the null hypothesis, to measure the possible association between the observed and expected frequencies through the Pearson Chi-Square (Madueño, Jorge, Sancho, & Martínez-Martínez, 2016) and an EFA was applied to reduce these 11 variables to factors.

The EFA allows clustering the variables into homogeneous groups. All these items can be correlated and grouped into a single factor (Kahn, 2006), but they are also relatively independent of other items that have been grouped into other factors. To evaluate if the application of the EFA is possible, the Kaiser-Meyer-Olkins (KMO) sampling adequacy measure was calculated, which consists in comparing the observed correlation coefficient with the magnitude of the partial correlation coefficient. If the calculated KMO value is below 0.6, the EFA cannot be applied. The other measure that was applied was Bartlett's Sphericity test which contrasts the null hypothesis (H0) to evaluate if the correlation of the observed matrix is an identity matrix.

If the level of statistical significance is greater than 0.05, then there is sufficient evidence to reject the null hypothesis H0, in which case the evaluation of the data is not adequate. Another test that validates if it is possible to apply the EFA data is the anti-image matrix test. The test requires that the values in the diagonal of the anti-image correlation matrix be high (Urbina, Samuel, Molina Morejón, & Armenteros Acosta, 2016). The other necessary condition is that there must be a high correlation between the 11 variables.

RESULTS

The descriptive analysis of the sample obtained can be seen in Table 1.

Table 1 *Percentage Analysis of the Sample Evaluated*

		Frequency	Percentage	Valid Percentage	Accumulated Percentage
Valid	Student	184	87.6	87.6	87.6
	Teacher	17	8.1	8.1	95.7
	Administrative	9	4.3	4.3	100.0
	Total	210	100.0	100.0	

Source: Own Elaboration

To verify the reliability of the scales used and as a starting point to validate the sample obtained from the surveys, the Cronbach's Alpha was used, the results of this statistical test can be observed in Table 2.

Table 2 *Values of Cronbach's Alpha for the Scales Applied*

		N	%
Cases	Valid	209	99.5
	Excluded	1	.5
	Total	210	100.0

Source: Own Elaboration

Table 3 *Reliability Statistics*

Cronbach's Alpha	Number of elements
.893	11

The results obtained show, based on the high value of Cronbach’s Alpha, that the Likert scales used are highly correlated and have internal consistency. According to the evaluation of several authors among them [Jisu, Delorme, and Reid \(2006\)](#) the reliability value in exploratory research must be equal to or greater than 0.6; in confirmatory studies, it should be between 0.7 and 0.8. The summary of these statistics and the frequencies in percent (%) can be observed in Table 4.

Table 4 *Mean Values and Frequencies Observed in the Survey*

Governing-Leadership Organ	Mean	s	Frequency %				
			1	2	3	4	5
V13 The University exercises an ethical and socially responsible leadership.	4.16	.835		4.3	15.2	41.0	39.5
V14 The GBs improve the management and competitiveness of the University.	3.74	.918	1.4	6.7	29.5	41.0	21.4
V15 The Governing Bodies (GBs) help to increase the financing of the University in terms of sustainability.	3.68	.891	1.4	5.2	36.7	37.6	19.0
V17 The GBs promote the relationships of students, teachers and graduates with providers and industry at the regional level (University-Industry Interaction).	3.44	1.093	5.7	11.9	32.4	31.9	18.1
V18. The GBs improve the motivation satisfaction of students and employees.	3.38	1.02	3.3	15.7	34.8	31.9	14.3
V19. The Governing Bodies (GBs) attend and support the social demands of the community close to the University.	3.31	.867	1.9	12.4	46.7	30.5	8.6
V20. The GBs promote the research and training of students and teachers linked to social and environmental issues.	3.23	.963	3.8	16.7	41.1	29.2	9.1
V21 The GBs promote the study of ethics and socially responsible development in their study programs.	3.71	.892	1.0	9.5	23.3	49.0	17.1
V22 The GBs promote the study of ethics and socially responsible development in their extracurricular programs (University Extension Programs)	3.61	.922	3.3	5.7	32.4	43.8	14.8
V23 The governance of the University has a high ethical and social commitment.	3.96	.969	1.9	4.8	23.3	35.7	34.3
V25 The High Management boosts innovation through effective leadership.	4.12	.838		3.3	19.5	38.6	38.6

USR Practices that Evaluate the Functioning of the GBs and the Influence of the Effective Leadership in the FCA.

For the evaluation of the GBs and the influence of effective leadership in the development of the USR, the opinions of the Students, Teachers and Administrators (Stakeholders) were evaluated through contingency tables focused on the 11 variables of the instrument, allowing this, the contrast of the null hypothesis, the results of this analysis can be seen in Table 5.

Table 5 Mean Values and Frequencies Observed in the Survey

	Concerned Parties (Stakeholders)			
	Mean Values			Sig.
	Students	Teachers	Administrative	χ^2
V13 The University exercises an ethical and socially responsible leadership.	4.158	4.412	3.889	0.296
V14 The (GBs) improve the management and competitiveness of the University.	3.727	3.941	3.667	0.005*
V15 The (GBs) help to increase the financing of the University in terms of sustainability.	3.634	3.941	4.111	0.060***
V17 The (GBs) promote the relationships of students, teachers and graduates with providers and industry at the regional level (University-Industry Interaction).	3.388	4.000	3.778	0.254
V18. The (GBs) improve the motivation satisfaction of students and employees.	3.328	3.941	3.444	0.154
V19. The (GBs) attend and support the social demands of the community close to the University.	3.246	3.941	3.667	0.000*
V20. The (GBs) promote the research and training of students and teachers linked to social and environmental issues.	3.142	3.941	3.667	0.000*
V21 The (GBs) promote the study of ethics and socially responsible development in their study programs.	3.672	4.176	4.000	0.164
V22. The (GBs) promote the study of ethics and socially responsible development in their extracurricular programs (University Extension Programs)	3.557	4.118	3.889	0.343
V23. The governance of the University has a high ethical and social commitment.	3.951	4.235	3.778	0.015**
V25 The High Management boosts innovation through effective leadership.	4.115	4.294	4.111	0.070***

*Chi square: 99%, Sig < 0.01.; **Chi square: 95%, Sig < 0.05.; ***Chi square: 90%, Sig < 0.1.

The hypothesis contrast based on statistical evaluations shown in Tables 3 and 4 leads us to reject the null hypothesis H01.

H01: The University's drive towards sustainability is not determined by the existence of Effective Leadership.

The analysis leads us to the existence of an Effective Leadership in the FCA and that this positively drives the University towards an improvement in management and competitiveness (V14), towards innovation (V25) and an ethical and socially responsible behavior (V23) while improving the financing of the University on sustainability issues (V15). The variables (V14), (V15), (V23) and (V25), which reject the null hypothesis H01 and complement this condition with the evaluation of the opinion of Students, Teachers and Administrators in a contingency table (Table 4) and these variables possess a low Sig. values that support a high association between the observed and expected frequencies.

The incipient breakthrough of the USR in the linking and promotion of the topics related to the development of the interested parties in the FCA causes that the null hypothesis H02 is rejected.

H02: An advance of the USR in the FCA does not depend on the influence of the GBs in the linking and promotion of topics related to the development of the stakeholders.

The variables associated with this hypothesis clearly show the need for a greater influence of the GBs in the improvement of the relationships between the different stakeholders for the construction of a sustainable University, the variables from (V17) to (V22) they include a number of topics that address this problem. Issues such as the promotion of contacts of teachers, students and administrators with the powerful industry at a local level (V17), the training of

students and teachers with social and environmental issues (V20) and attention to the social demands of the community close to the University (V19), among others, causes the null hypothesis H02 to be rejected. When evaluating the opinion of the different interested parties within the University, there is a coincidence in the opinions related to the variables (V19) and (V20). The evaluation of frequencies in percentages shows us that there are practices of USR in the FCA, but an improvement is necessary in order to develop the relationship and the linkage of the interested parties for better sustainable development.

Determination of the Factors that Express the Behavior of the USR Linked to Governance in the FCA.

The use of the EFA allowed two factors to be determined from the variables of the measurement instrument, that clearly and independently express the conditions in which the University operates in issues of USR linked to governance. Both factors allow rejecting the null hypotheses H03 and H04.

The use of the EFA allowed two factors to be determined from the variables of the measurement instrument, that clearly and independently express the conditions in which the University operates in issues of USR linked to governance. Both factors allow rejecting the null hypotheses H03 and H04.

H03: There is no limited number of variables that identify factors that determine the leadership and management of Senior Management in the FCA.

H04: There is no limited number of variables that identify factors that determine the promotion and involvement of the stakeholders of the USR in the FCA.

The result of the application of the EFA shows that 10 of the 11 variables evaluated can be taken to 2 independent factors. The results of the KMO sample matching test and Bartlett’s Sphericity test are shown in Table 6.

Table 6 Test of KMO and Bartlett

Kaiser-Meyer-Olkin	Measure of Sampling Adequacy	.905
Bartlett’s Sphericity test	Approx. Chi-square	874.321
	Gl	45
	Sig.	.000

The reduction of the ten variables to 2 factors that explain 60.33% of the variation can be seen in Table 7. The

Table 7 Result of Factorial Analysis with Four Components

Components	Sums of removal of loads squared			Sums of rotation of loads squared		
	Total	% variance	% accumulated	Total	% de variance	% accumulated
1	4.986	49.862	49.862	3.331	33.306	33.306
2	1.047	10.470	60.332	2.703	27.026	60.332

Varimax rotation was applied for a better interpretation of the results. Orthogonal rotations (Varimax, Quartimax and Equimax) produce uncorrelated factors, so they could be considered appropriate when factor independence is assumed, at least from a conceptual point of view (Beavers et al., 2013; Conway & Huffcutt, 2003; Costello & Osborne, 2005; Fabrigar, Wegener, MacCallum, & Strahan, 1999). The Varimax rotation consists of rotating the four coordinate axes that represent the factors/components. This continues until it gets as close as possible to the maximum variables in which (the components) are saturated. Table 8 shows the two factors identified with the names (Effective Leadership and Management) and (Promotion and Engagement of Stakeholders). The names chosen are based on the variables that determine each factor. The factors delimitate the successes and difficulties that the University has of USR issues and are supported by the initial evaluations prepared by the experts in the Focus Group. The Effective Leadership and Management factor includes issues of senior management development in terms of improvement, competitiveness, management, and innovation, driving drivers of the USR in the FCA. The Promotion and Engagement of Stakeholders was confirmed by issues that should be improved for a better development of the USR, framing this a poor relationship between the university community and the local industry, insufficient attention to the demands of the local community

near the University and a low promotion and research of teachers and students, among other topics that should be handled in a better way in the future for the achievement of a sustainable campus.

Table 8 *Main Rotated Components Obtained through EFA, and that Evaluate the (Promotion and Engagement of Stakeholders) and the (Effective Leadership and Management in the FCA)*

	Component	
	Promotion and Engage- ment of Stakeholders	Effective Leadership and Management
19. The GBs attend and support the social demands of the community near the University.	.771	
20. The GBs promote the research and training of students and teachers linked to social and environmental issues.	.724	
17. The GBs. promote the relationships of students, teachers, and graduates with providers and the industry at a regional level (University-Industry Interaction).	.722	
21. The GBs promote the study of ethics and socially responsible development in their study programs.	.721	
22. The GBs promote the study of ethics and socially responsible development in their extracurricular programs (University Extension programs).	.679	
18. The GBs improve the satisfaction and motivation of students and employees.	.643	
13. Does the University exercise ethical and socially responsible leadership?		.773
23. Does the governance of the University have a high ethical and social commitment.		.756
14. The GBs. improve the management and competitiveness of the University.		.740
25. The High Management boosts innovation through effective leadership.		.712

DISCUSSION

Validation of the Factors Found as Vital Points that Place Senior Management as the Central link of the Stakeholders of the USR

Research worldwide relate the variables that make up both factors of our work as vital issues that must be solved for a sustainable improvement in the university environment, only that we have placed the governance of the University as the guiding center of each process since its Linkage, support and commitment are considered vital for a sustainable takeoff. If the work of [Meléndez Guerrero, Solís Pérez, and Gómez Romero \(2010\)](#) is addressed, it can be seen that they detail the influence of the university government as decision-making, the distribution of authority, the creation of consensus, the resolution of conflicts and the obtaining legitimacy, through its basic purposes and its mission.

[Brunner \(2011\)](#) tells us that in turbulent times like the current one, the magnitude, intensity and speed of the changes in the environment, within which the universities develop, threaten to overcome their reaction and adaptation capacities, which may cause them crises, the loss of competitive position and, in some cases, the disappearance. These changes force the institutions, in order to increase their strategic capabilities vis-à-vis the external environment, to redesign their governance and management structures and procedures. For [Kezar and Eckel \(2004\)](#) the university government encompasses the concept of shared and participatory governance at a macro-level where decision-making must involve the community, business, and industry to solve social problems, taking into account that the institutions

face competitiveness.

It is very interesting what was stated by the [European Commission \(2006\)](#) in its statement to the European Parliament and Council regarding modernization for universities: education, research and innovation are linked to the issue of university government where it states that this governance is aimed at modernizing the universities in order to establish a knowledge society capable of improving their performance and competitiveness, eliminating geographical barriers, ensuring that universities are autonomous and responsible, combining skills and competencies for the labor market, reducing the funding gap and improving the efficiency of education and research.

In the works of [Ganga Contreras, Viancos, and Leyva Cordero \(2016\)](#) it is explained that:

The university must become a representative entity and articulator of a cultural project for a specific community (implicit in this is the concept of commitment and university social responsibility). Therefore, depending on the objective that is finally established, then the prototype of government that she/it needs will change in the same way.

[De La Corte and Carrasco González \(2012, p. 378\)](#) tell us that the leadership that managers perform in companies is of vital importance since “they are the ones who mark the strategies and the lines to follow to reach their objectives”. On the other hand, they show that “the achievement of these must be based on ethical criteria of social responsibility, whose development and implementation require styles of leadership committed to business excellence, globalization and change”.

The managers, according to the works of [Sidorova \(2015\)](#) are the key to determine the policies and practices in the companies and influence the consolidation of the RS. For his part ([Pedraja-Rejas & Rodríguez-Ponce, 2008](#)) tells us that the style of leadership is an influence, for this reason, in the processes and objectives of a particular institution.

In this research it has been determined that although the GBs of the University, do not work completely focused on responsible work, being evaluated, through the factor “Promotion and Linking of Interested Parties”, to a poor level within the research the influence of effective leadership within the University can move the interested parties towards a commitment and towards a better way of doing things, that driving force can impel the development of the University and change the strategic board making it that is directed in the sustainable direction, the factor “Effective Leadership and Management”, involves vital issues such as transparency, ethics, social connection, and innovation, being the driving force that serves as the basis for responsible management, without this momentum, it is unlikely that the stakeholders of the USR will advance in a continuous improvement of these issues.

In a Public University, the leadership, seen as the basis of the impulse and the interrelation of the Top Management with the interested parties in the mutual commitment, either, Teacher, Financial, Social, Community, Environmental is the way to follow, there is no effort, without values, delivery, fluidity in relationships, listening and resolving university issues that a senior management with leadership and commitment can perform.

CONCLUSION AND IMPLICATIONS

The work shows the strategic positioning factor that leadership can achieve within a business school, in the political-social context in which Mexico is developing today, this being a study limited to the opinion of students, administrators, and teachers of a Faculty of Administration of the Autonomous University of Coahuila. It is vital to expanding the field of the sample to other business schools of the same University to have a greater margin of responses and thus determine the status of the USR in them and what are the possible mechanisms of impulse and brake with which the management face the change and adaptation of the University to the changing environment. Future studies should incorporate the evaluation of other interested parties and the mechanisms of interaction of these, as well as the influence of the governance of the University.

It was determined that there is a positive influence on leadership as a driving force of the USR, the analysis of the contingency tables that evaluate the behavior of senior management as a guide to be followed in sustainable issues showed that the stakeholders evaluated have consensus regarding the guide that exists in the FCA and supports the decisions and demands that in matters of USR drives the Governance of the University.

The determination of a factor of four variables (V13, V14, V23 and V25) that explains the management focused on ethical leadership in the FCA shows that the application of the instrument to the selected sample is statistically significant and that there is a high level of consistency in terms of the governance of the university in ethical matters, there is also an active participation of senior management in obtaining funds and the creation of competences that reinforce the foundations of a responsible University. On the other hand, there is a poor linkage and development of the Management of the GBs with the interested parties, being important an improvement in the extracurricular programs

that address the thematic of the USR, an improvement in the basic formation of the students in sustainable subjects, greater training and promotion of these issues in the study programs and the linking of a greater number of students, teachers and administrators to support the social demands of the community near the University, among other topics evaluated.

The influence of the GBs in the promotion and linking of the interested parties could be reduced to an independent factor that contains 6 variables (V17, V18, V19, V20, V21 and V22) which express the conditions under which these GBs work in the FCA, the result of the applied statistics shows us that there is a development of the USR in the campus, but that this should go towards an improvement of the subjects that today measure the development of a responsible university. The programs for its development and improvement are there; it is only necessary a greater control and an advance in the processes that manage them.

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