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Artículos Científicos

El capital estructural y su relación con el desempeño en educación superior

Structural capital and its relationship with performance in higher education

Capital estrutural e sua relação com o desempenho no ensino superior

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Resumen

El objetivo del presente estudio fue analizar la relación del capital estructural y el desempeño en escuelas de educación superior. Para ello, se llevó a cabo un estudio de naturaleza cuantitativa y se aplicó un cuestionario al personal de instituciones de educación superior. La muestra estuvo conformada por 84 participantes. Mediante la técnica de análisis factorial exploratorio, se identificó la estructura subyacente de los constructos de interés y por medio del coeficiente de correlación se determinó la asociación entre las variables de capital estructural y desempeño. Se determinó que existe una correlación positiva y significativa del capital estructural con las dimensiones del desempeño: calidad educativa y eficacia-innovación. Estos hallazgos son relevantes porque dan pauta a la gestión directiva de las instituciones analizadas sobre la trascendencia de implementar prácticas de diseño y técnicas de organización relacionadas con la estructura formal de las escuelas, lo que brinda beneficios al desempeño organizacional.

Palabras clave: capital intelectual, capital estructural, desempeño organizacional, intangibles, instituciones de educación superior.

Abstract

The objective of this study was to analyze the relationship between structural capital and performance in higher education schools. A quantitative study was carried out, for which a questionnaire was applied to personnel of higher education institutions who agreed to answer the instrument. A sample of 84 respondents was obtained. The exploratory factor analysis technique identified the underlying structure of the constructs of interest, and by means of the correlation coefficient, the association between structural capital and performance variables was determined. It was determined that there is a positive and significant correlation of structural capital with the dimensions of performance: educational quality and efficiency-innovation. These findings are relevant because they give guidance to the management of the institutions analyzed, the importance of implementing design practices and implementation of organizational techniques related to the formal structure of schools for the benefits it brings to organizational performance.

Keywords: Intellectual capital, structural capital, organizational performance, intangibles, higher education institutions.

Resumo

O objetivo do presente estudo foi analisar a relação entre capital estrutural e desempenho em escolas de ensino superior. Para isso, foi realizado um estudo de natureza quantitativa e aplicado um questionário aos funcionários das instituições de ensino superior. A amostra foi composta por 84 participantes. Utilizando a técnica de análise fatorial exploratória, a estrutura subjacente dos constructos de interesse foi identificada e a associação entre o capital estrutural e as variáveis de desempenho foi determinada pelo coeficiente de correlação. Foi determinado que existe uma correlação positiva e significativa do capital estrutural com as dimensões do desempenho: qualidade educacional e efetividade-inovação. Esses achados são relevantes, pois orientam o gerenciamento das instituições analisadas sobre a importância da implementação de práticas de design e técnicas de organização relacionadas à estrutura formal das escolas, o que traz benefícios ao desempenho organizacional.

Palavras-chave: capital intelectual, capital estrutural, desempenho organizacional, intangíveis, instituições de ensino superior.

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Introduction: the importance of organizational performance (DO)

Organizational performance (OD) is one of the most relevant concepts in management, and on various occasions it is recognized as a synonym for productivity or organizational excellence (Richard, Devinney, Yip and Johnson, 2009; Wee and Chua, 2015). Traditionally, DO is associated with income and profitability; However, according to Ousama, Fatima and Hafiz (2011), economic uncertainty and global competition make this vision insufficient to provide an adequate perspective of the present and future, for which other measurement elements have been used, such as organization continuity in the market, risk management and organizational productivity (Pal, Torstensson & Mattila, 2011).

Performance measurement, therefore, has become more complex in recent decades after the emergence of theories aimed at evaluating it through multivariable models, instead of using only the financial element (Aydogan, 2011; Hornungova, 2014; Vasconcelo, Pedraza, Lavín and Cortés, 2016). In this way, the existing literature shows the need for indicators that cover the institution in a holistic way, and not only focused, since focusing attention on traditional elements - such as the financial one - limits the possibility of including it within the Measurement of resources and capacities developed by the organization, which have been shown to be of importance for the production and performance of companies (Grant, 1991; Wernerfelt, 1984). Likewise, its acquisition and exploitation contribute to superior performance (Barkat, Beh, Ahmed and Ahmed, 2018).

Numerous studies have focused on measuring performance with dimensions that transcend tangible elements, with the application of intellectual capital (IC) (Asiaei and Jusoh, 2015; Bontis, 1998; Bontis, Chua and Richardson, 2000), and in multiple cases It has been shown to have a significant influence. This positive impact is shown in studies from various sectors, such as banking or telecommunications (Cabrita and Bontis, 2008; Latif, Malik and Aslam, 2012; Khaliq, Shaari, Isa and Samad, 2013; Mention and Bontis, 2013; Mondal and Ghosh, 2012; Saeed, Sami, Lodhi and Iqbal, 2013; Suraj and Bontis, 2012), where in general a significant influence of intellectual capital and its dimensions on DO has been evidenced.

In this sense, one of the entities that function as a relevant study area for measuring their performance are higher education institutions (HEIs), in their capacity as key actors in the knowledge society due to the primary role they have. in the preparation of human capital (Galleguillos, Silva and Becerra, 2018). In this regard, Smart and Hamm (1993) comment that the measurement of the performance of a university is of utmost importance if the institution wants to

deliver quality results, since it is a broad indicator that can include productivity, quality, consistency, etc. Ultimately, the success of an institution will be evaluated according to its performance in relation to the objectives set (Richard et al., 2009). However, it is necessary to identify what are the main elements that contribute to this performance, such as the case of the intangible assets that it has and that form its intellectual capital (IC).

The evolution and nature of intellectual capital (IC)

Intellectual capital, seen as the organization's targeted knowledge, has taken on considerable relevance in recent years (Campisi and Costa, 2008). This theory shows the importance of the management of intangibles within organizations as it is recognized as the knowledge that generates value for the organization through its proper management (Mercado and Cernas, 2012). It integrates elements that help the organization achieve long-term results Choudhury (2010) such as patents, trademarks, customer relations and knowledge, so it can be established that the real capacity of an institution is hidden in these intangibles (Shehzad, Fareed, Zulfiqar, Shahzad and Latif, 2014). In the field of education, for his part, Ramírez and Gordillo (2014) point out that the IC integrates the non-tangible assets of the institution, such as patents, copyrights, processes, capacity for innovation, recognition of society, capacities and members' knowledge, skills, abilities and networks.

Traditionally, the one developed by Bontis (1998), who establishes a division of intellectual capital in three dimensions of relevance for any institution, has been established as a model for this theory:

- Human capital (CH). It refers to the set of values, beliefs, capacities and attitudes that the members of the organization possess, fundamental for the generation of value within it (Bontis et al., 2000; Bueno et al., 2003). It is particularly reflected in the actions of people, who, from the teaching-learning process, carry out their tasks in a concrete way, in addition to —with the experience gained— promoting innovation by executing their functions creatively (Brooking, 1997; Edvinsson and Malone, 1999).
- Relational capital (CR). It refers to all those interactions with the exterior that promote the generation of value for the organization in general or particularly for its products and services (Bontis et al., 2000). The main agents included in these interactions can include suppliers, competitors and clients (Martos, Fernandez and Froilan, 2008).

- Structural capital (CE). It allows to identify that internal knowledge that the organization possesses and collaborates to generate its value; unlike human, this type of capital remains even when workers leave the institution, allowing it to continue to be used by new members (Roos, Roos, Dragonetti and Edvinsson, 1997). Examples of structural capital can be seen when talking about the processes within a company, the organizational culture, the systems and technologies used, as well as the organizational structure itself and teamwork (Martos *et al.*, 2008).

According to Marr, Gray and Neely (2003), the reasons for measuring the IQ of an organization are that this will help the company to formulate its strategy, evaluate its execution, collaborate in decision-making, and communicate effectively with agents of interest and to take as a basis for the compensation of administrators, that is, it will be a notion that serves to identify the performance of the organization (Todericiu and Serban, 2015).

According to Rodríguez, Ortega-Fernández, Alvarez and Roqueñí (2006), measuring the intellectual capital of an organization is essential to be able to make more realistic comparisons of its situation, so that its value can be estimated and its performance and growth can be controlled. This is supported by Guthrie, Ricceri and Dumay (2012) and by Rodrigues, Selig and Viegas (2019), who comment on the paradigm shift that since 1980 the world economy has moved from an industrial vision to a framework based on knowledge and hence the importance of having an IQ measurement to identify the creation of value and competitive advantages. This approach is shared by Rodrigues, Figueroa and Fernández-Jardón (2009), who comment on the importance of spending on intangible assets, since they represent variables that significantly impact the performance of organizations.

Relationship of intellectual capital and organizational performance

As the existing literature shows, intellectual capital is a topic widely studied in developed and industrialized countries, although not in emerging economies, much less in higher education institutions (HEIs) (Tseng and Goo, 2005). In Mexico, this fact is also a reality, since there is little research in this regard aimed at universities (Mercado-Salgado, Cernas-Ortiz and Sánchez, 2014).

HEIs - for more than a decade - have been immersed in processes of paradigm change that seek to create organizations with a higher level of competitiveness, dynamism and transparency (Sánchez, Elena and Castrillo, 2009). In this sense, Zorrilla (2010) argues that a management philosophy should be implemented that contributes to strengthening universities and improving

their competitiveness and credibility results in society, this through knowledge management; emphasizing the relationship that intellectual capital management has with the performance of institutions, describing the relationship between its dimensions with the impact it generates in the processes carried out by a HEI and, therefore, in the agents that interact with the organization .

As previously commented, it is essential to observe the results of the relationship between the components of intellectual capital and how these, as an independent variable, may be able to impact organizational performance as a dependent variable; however, it is necessary to identify in the first instance if the commented dimensions apply to the educational context. In this sense, as Demuner, Nava and Ibarra (2014) comment, the described classification is also applicable to higher education institutions, and there are a number of studies that show how the interrelationships between the three dimensions of the university are relevant to the university context. intellectual capital (Bezhani, 2010; Leitner, 2004; Ramírez, Lorduy and Rojas, 2007; Sánchez et al., 2009).

For example, human capital is perceived as the knowledge developed by the university community, as well as its experiences and competencies, derived from academic updating and teamwork (Bueno et al., 2002; Ramírez et al., 2007); Relational capital is identified in the work networks of students and companies, since these allow the transfer of knowledge into and out of the university. For its part, structural capital "integrates the incorporated, systematized and processed knowledge of the university, which once formalized becomes its property and is transmitted to students, organizations and society itself" (Demuner, Nava and Ibarra, 2016 , p. 64), in other words, it is the institution's own knowledge that is systematized to the extent of generating routines (Bueno, 2003). In addition, it works as a means to search for the profitability and projection of the talent and intelligence of all its members, thus achieving the organization's value proposition (Bueno, 2003).

Robles and Zárate (2013) They emphasize the importance of studying the way of managing intellectual capital in universities, given the source of value that this would represent for the institution. In this order of ideas, there are research cases on the relationship between the variables of IQ and OD in the educational context, as can be seen in the study by Shehzad et al. (2014), who approach it from the university context of Pakistan. Their results show a positive correlation between the three dimensions of IQ with the institutional performance of Pakistani universities, which shows the enormous contribution that is made between these variables.

Other studies, such as the one by Galleguillos et al. (2018), also teach a positive relationship between the three dimensions of IC and the performance of universities; However, they emphasize

that only some indicators of each dimension are those that contribute significance to this correlation. This fact occurs in the context of higher education institutions in Chile, orienting performance exclusively from the financial point of view, and they are indicated as the main indicators that lead to improvement, the one aimed at increasing full-time academics, accreditations, the generation of government-supported projects and publications.

Bermúdez, Pertuz, and Boscan (2015) establish a vision of structural capital in Colombian universities from a qualitative perspective, by identifying strengths and weaknesses in that context. They conclude that the positive elements are oriented to research and development efforts and technological endowment, while the weaknesses focus on aspects of intellectual property and innovation. For their part, Merhej and Deeb (2016) talk about the impact that structural capital has on innovative performance in Syrian universities, and manage to establish a significant correlation between these two variables. However, they mention that this relationship is weak due to the delay in the fields of information technology where it was found that the systems used in that country are not effective.

The literature also shows studies developed from each of the IQ dimensions to verify the existing relationship with DO. An example of this can be seen in the study by Barkat et al. (2018), who seek the relationship between human capital, structural capital, and relational capital with organizational performance in textile companies in Pakistan. In this case, it was found that two of the three dimensions had a significant relationship with organizational performance, with relational capital having the strongest effect, leaving human capital second. Furthermore, this study shows insignificant effects between structural capital and OD.

The study by Barkat et al. (2018) is consistent with that of Hormiga, Batista-Canino and Sánchez-Medina (2011), who comment that a significant part of the organizational performance is given by the relationship between the company with customers and suppliers in the context of startups of Spain and Portugal. Similarly Luo, Griffith, Liu and Shi (2004) demonstrate a significant relationship between CR and DO, mainly towards strategic and financial performance. Positive effects between CH and DO are also found in studies by Wang, Wang and Liang (2014) and Felicio, Couto and Caiado (2014), who highlight the role of correct human resource management to achieve success within organizations.

On the other hand, however, insignificant relationships can be pointed out between the CE and the DO. For example, Leitner (2015) mentions that there is a negative effect between these variables in the long term, mainly on the profitability and growth of the company, at least in the

context of Austria. Likewise, Hejazi, Ghanbari and Alipour (2016) explain that structural capital has a significant negative relationship with the performance of a company, establishing in this study that the main dimension that impacts DO is human capital.

However, studies such as that of Hsu and Wang (2012) show that structural capital is positively associated with the performance of an organization. This is also supported by Al-Hawajreh (2013), who finds a positive relationship between structural capital and organizational performance in Jordan's pharmaceutical sector; Furthermore, it shows that although the complete CE variable has a significant relationship, not all of its indicators have the same weight.

Gogan, Artene, Sarca and Draghici (2016), on the other hand, publish positive results in the three dimensions of the IC and its relationship with the DO. In human capital, they show a correlation higher than 0.5, and determine a dominant role of the CH on organizational performance. Regarding structural capital, despite the fact that in one of the four companies analyzed the relationship is negative, in the other three a positive association is evident, which shows a significant influence on the DO. Finally, the CR was also found with a positive significant relationship, so the following general research hypothesis (HGI) is established in the literature review presented in this discussion: from the perception of the respondents, there is a correlation positive and significant between structural capital and organizational performance in higher education institutions analyzed in this study.

Material and method

The present research was based on the quantitative paradigm with the intention of evaluating, from the perception of the respondents, the importance they attach to the relationship of the aspects of structural capital with performance. To achieve this goal, a questionnaire was designed with a five-point Likert-type scale, which was taught to the participating teachers and administrators. For the structural capital variable the number 1 represented never and 5 always, while for the performance variable the number 1 meant lousy and 5 superior. It should be noted that the design of the questionnaire took as a general reference the model proposed by Bontis (1998), who makes a proposal for the operationalization of intellectual capital, which—in the specific case of this research— was translated and adopted for the factor of the structural capital, while for the DO variable, indicators considered appropriate for evaluating the university were proposed.

The questionnaire was made up of three sections: the first consisted of 15 items to collect the respondents' assessment of structural capital; The second section was designed with 14 indicator

questions referring to the organizational performance of the universities; Finally, in the last section, questions were asked to collect data regarding the respondents and their institutions (eg, the position held, seniority in the position, the age of the respondent, the level of education and sex, while In relation to the organization, an attempt was made to find out whether it corresponded to the public or private sector, the location — north, center, south — and years of service of the institution in society).

It was possible to form a sample at the convenience of 84 respondents from public and private institutions who decided to collaborate in the research. Data collection was carried out between March and June 2019. Contact with HEI managers was established through a letter, in which the objective of the study and the invitation to collaborate were explained. In this first formal approach, the questionnaire was applied in person to the directing and teaching staff who agreed to answer the instrument. To present the characteristics of the respondents, descriptive statistics were used, which involves summarizing the data resulting from a research work so that they can be compiled, organized, analyzed and exposed by means of elements that show them clearly and simply. , such as tables, charts and graphs, among others (López y Diez, 2017; Rendón-Macías, Villasís-Keever y Miranda-Novales, 2016).

The study sample was characterized by the following: 45.2% men and 54.8% women. Half occupy the teaching position, while the other carries out administrative and academic management activities; This means that a balanced participation of both positions in the organization was achieved. The majority (60%) were more than five years old in the IES and only 40% less than that time. Regarding the age of the respondents, it was identified that a low percentage (8.3%) was between 18 and 33 years old, while the majority was over 34 years old (91.70%).

Once the database of the respondents was formed, the statistical analysis techniques - specifically exploratory factor analysis (AFE) - were applied using the SPSS statistical software (version 25) in order to identify and verify the structure underlying of the two study variables: structural capital and organizational performance. This technique of data analysis consists of "a set of multivariate statistical methods of interdependence whose main purpose is to identify a structure of factors underlying a broad set of data" (Pérez and Medrano, 2010, p. 58).

It should be noted that the reliability of the scales was assessed using the Cronbach's alpha index, which establishes a minimum value of 0.70 to show adequate internal consistency of the instrument. Despite the existence of different methods, Cronbach's alpha turns out to be the most used to estimate reliability, with the interval between 0.70 and 0.90 being the result that shows

good internal consistency for a one-dimensional scale (Celina and Campo, 2005) . Subsequently, to evaluate the research hypothesis, the correlation coefficient was determined, a tool that allows identifying the associations found between two variables. (Bottasso, 2009).

Results of the analysis of the correlation between CE and DO

In the study it was determined that structural capital shows a single dimension in its conformation (table 1). Among the aspects valued from the perception of those surveyed, the importance of educational institutions having recruitment and selection programs, innovation strategies and technological vigilance, as well as documented processes to ensure the execution of tasks, stand out in this construct. In the organization. Likewise, it is worth mentioning having databases and information systems, and having a well-defined organizational structure (organization charts, organization manuals and procedures).

The conformation of a single factor was adequate, since it showed a favorable internal consistency level (alpha of 0.85); The same happened with the exploratory factor analysis technique (AFE), which showed a KMO value greater than 0.70. It should be noted that the original scale that was presented to the respondents had 15 items to measure structural capital; however, nine were removed. Due to its low factor load, so there were only six indicators of this construct, which are observed in detail in Table 1.

Tabla 1. Validación del constructo de capital estructural (CE)

Factor: Capital estructural	Media del ítem	Carga factorial	AFE	Alfa de Cronbach
CE2 Los programas de reclutamiento y selección están dedicados para contratar a los mejores candidatos.	3.69	0.81	KMO 0.79 Chi 222.380 Sig. 0.000	0.85
CE3 Se desarrollan de forma exitosa programas de sucesión de puestos.	3.35	0.78		
CE4 Se cuenta con estrategias de innovación y vigilancia tecnológica.	3.57	0.67		
CE10 Se tiene procedimientos documentados que ayudan a ejecutar acciones rutinarias.	3.98	0.78		
CE14 Se cuenta con sistemas de información computarizados.	4.13	0.76		
CE15 Se cuenta con una estructura organizacional definida.	4.3	0.72		

Fuente: Elaboración propia

When running the AFE technique for the organizational performance variable, two factors were identified, which were called academic quality (AC) and efficacy and innovation (EI) by the groupings of the variables (Table 2). It was determined that the level of reliability of this scale was also acceptable, since Cronbach's alpha was in the acceptable range (greater than 0.70), a value obtained in both components of the construct of organizational performance in the educational institutions analyzed. It is specified that four items were eliminated due to the low factor loads received, and finally the indicators to measure the performance in ten items were distributed among the two factors described in Table 2.

Tabla 2. Valoración de la confiabilidad y estructura subyacente del desempeño organizacional

Factor 1: Calidad Académica (CA)	Media del ítem	Carga factorial	AFE	Alfa de Cronbach	
D1 De la imagen de su institución y servicios.	4.27	0.74	KMO 0.91 Chi 602.331 Sig. 0.000	0.89	
D2 De la calidad académica de los procesos y servicios.	4.35	0.85			
D3 De la formación de calidad de estudiantes.	4.24	0.84			
D5 De la satisfacción de los usuarios.	4.11	0.72			
D6 Del desempeño en el logro de objetivos.	4.17	0.69			
D9 De la productividad de empleados.	3.98	0.75			
Factor 2: Eficacia e innovación (EI)					
D11 Desempeño en aplicación de recursos.	3.99	0.81			0.91
D12 Coordinación de procesos internos.	3.94	0.75			
D13 Innovación continua.	3.99	0.77			
D14 Vinculación con el sector productivo y sociedad.	4.08	0.86			

Fuente: Elaboración propia

Subsequently, once the underlying structure was identified with the AFE technique for structural capital, as well as for the organizational performance variable, the level of correlation between the variables of interest was evaluated. In this way, it was confirmed that structural capital is positively and significantly correlated with the two determined performance factors in the analyzed HEIs, with positive and significant correlation values, which found from 0.48 to 0.53, as observed in Table 3, hence, the research hypothesis of the present study is not rejected. The empirical evidence of this study, therefore, contributes to the theory that intangibles are associated with the performance of organizations, thus confirming this assumption also for the context of higher education.

Tabla 3. La correlación entre las variables de estudio

Matriz		Calidad académica (CA)	Eficacia e innovación (EI)
Coefficiente de correlación de Spearman	Capital estructural	.486	
	Capital estructural		.531
Significancia		0.000	0.000
N		84	84

Fuente: Elaboración propia

Nota: N = número de elementos de la muestra de datos.

Discussion, limitations and study implications

Previous studies of organizations both in the context of universities and in other types of industries have shown that there are positive and significant relationships between the components of the CI and the DO, results that have been determined in research such as those carried out by Al-Hawajreh (2013), Barkat et al. (2018), Galleguillos et al. (2018), Gogan et al. (2016), Merhej and Deeb (2016), Shehzad et al. (2014), Hsu and Wang (2012).

In this sense, the findings of the present study show high and significant correlation coefficients between structural capital and academic quality (coefficient: 0.48) and efficacy and innovation (coefficient: 0.531); without a doubt, these data provide empirical evidence to confirm the results determined by the studies referred to above, which precisely point to having found positive associations between these two variables (CE and DO).

It should be noted that, at the same time, the results of this study contrast with those reported by Hejazi et al. (2016), who point out that structural capital has a negative relationship with organizational performance. These authors, in fact, demonstrate in their study that the main dimension that impacts DO is human capital. Therefore, it is estimated that a future line of research to follow would be to incorporate the dimension of human capital as one more variable to analyze, since finally it is the employees of an organization who possess their own assets (experience, knowledge, attitude, values). In other words, when they leave the organization, they take those intangible assets.

In the literature, it is pointed out that organizational performance tends to be considered as a synonym of productivity (Richard et al., 2009; Wee and Chua, 2015), and this study confirms this assumption, because in the present investigation said variable shows a structure factorial determined by two factors, identified as academic quality (AC) and efficacy and innovation (EI), both made up of aspects that necessarily refer to indicators related to productivity issues, such as quality of processes, quality of services, quality in training, goal achievement and effectiveness.

Therefore, and to seek some generalization of the results of this study, it is necessary to think about the possibility of replicating the research in other states of the country, since in this way the possible trends in both public and private HEIs in Mexico can be observed. , as well as ensuring a representative sample of this type of educational organizations. Otherwise, the findings of this study would have the main limitation and weakness of having been collected only from the Tamaulipas institutions that collaborated in the research. Even so, it is worth noting that these results show an exploratory scope that allows us to know the phenomenon analyzed from the perception of the teachers and managers surveyed.

Conclusions

As has been observed in the commented literature, intellectual capital is a phenomenon widely studied in developed and industrialized countries, although not in the same way in emerging economies, as is the case in Mexico. Hence the interest in conducting research in our context, since today organizations, both public and private, are in an exhaustive search for strategies to stay current in their markets.

Therefore, the objective of this study has been to analyze how aspects related to organizational structures, processes, programs, procedures, and policies (structural capital) are valued by HEI actors (managers and teachers). , and how they appreciate that these elements can be correlated with the different performances of the institutions. In this sense, the main finding of this investigation has been to confirm the hypothesis raised, that is, that intangible aspects — particularly, those grouped in the category of structural capital— indeed show positive and significant correlations with the two types of performance determined in this research: academic quality (CA) and effectiveness and innovation (EI).

These results are a starting point for educational management to attach importance to the formal aspects of its organization not only to document the knowledge and experience of its employees in administrative manuals, databases and information systems, but also to estimate how

They can benefit from formal systems strategies and procedures, in order to improve the indicators and the achievement of the objectives of organizations in the field of educational quality, as well as processes and services that they provide to their students and to society in general.

Finally, it is necessary that the managers of the IES take into account that from the appreciation of the respondents two dimensions of performance are observed that are valued in an important way, so it is recommended that they draw up action initiatives that promote and strengthen the aspects related to giving added value through organization techniques (structural capital) that strengthen indicators such as the institutional image, the quality of student training, the quality of educational processes and services, the achievement of academic indicators, among other aspects positively valued by the respondents.

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