

Satisfacción laboral y compromiso organizacional del capital humano en el desempeño en instituciones de educación superior

Job Satisfaction and Organizational Commitment of Human Capital in Performance in Higher Education Institutions

Satisfação no trabalho e comprometimento organizacional do capital humano no desempenho de instituições de ensino superior

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Resumen

La educación tiene un rol central en la formación de capital humano en las naciones, en particular para México. El objetivo de este estudio fue analizar la relación de prácticas en la gestión del personal, como son las variables de satisfacción laboral, compromiso organizacional, competencia del capital humano, y sus efectos en el desempeño de instituciones de educación superior. El diseño metodológico se abordó con enfoque cuantitativo, alcance explicativo, no experimental y transversal. Se aplicó un cuestionario a directivos de instituciones públicas y privadas, quienes accedieron a responder el instrumento. Se conformó una muestra final de 84 encuestados. Se aplicó el modelo de ecuaciones estructurales, mediante la técnica de mínimos cuadrados parciales, para evaluar las relaciones establecidas en las hipótesis de esta investigación. De acuerdo con los resultados, se determinó que el capital humano y la satisfacción laboral son dos variables que contribuyen positivamente en el desempeño educativo. Ambas fueron consideradas prácticas de valor en la gestión de personal, relacionadas con asegurar que los empleados cuenten con

experiencia, habilidades y conocimientos para su función y que den su mejor esfuerzo; vinculadas con el fomento al trabajo en equipo y el aprendizaje continuo; necesarias para que exista libertad de expresión y reconocimiento por el trabajo bien hecho, así como la posibilidad de crecer en la organización, y, entre otras, para que las sugerencias que presentan sean tomadas en cuenta, puesto que ello contribuye a mejorar la imagen institucional, la calidad de los procesos y servicios educativos, la formación de calidad de los alumnos, así como el logro de objetivos e indicadores académicos. Por lo que, en conclusión, estos hallazgos son importantes para que la gerencia educativa contemple, en el diseño de sus prácticas de gestión de recursos humanos, estrategias que favorezcan potenciar las competencias de sus empleados y su satisfacción laboral. Ello en beneficio de mejorar su desempeño educativo.

Palabras clave: calidad académica, desempeño educativo, docencia, enseñanza superior, universidad.

Abstract

Education has a central role in the formation of human capital in nations, particularly for Mexico. The objective of this study was to analyze the relationship of practices in personnel management, such as the variables of job satisfaction, organizational commitment, competence of human capital and its effects on performance in higher education universities. The methodological design was approached with a quantitative approach, explanatory, non-experimental and transverse scope. Questionnaire was applied to senior management of public and private institutions, who agreed to respond to the instrument. A final sample of 84 respondents was formed. The model of structural equations was applied, using the partial least squares technique, to evaluate the relationships established in the hypotheses of this research. According to the results, it was determined that human capital and job satisfaction are two variables that contribute positively towards educational performance; determining that personnel management practices are valued, which are related to ensuring that employees have experience, skills and knowledge for their function, that they give their best effort, teamwork and learning is encouraged, that there is freedom of expression, recognition is given for a job well done, the possibility of applying their abilities and growing in the organization, the suggestions they present are taken into account, since this contributes to improving the institutional image, the quality of educational processes and services, the quality training of students, as well as the achievement of academic objectives and indicators. As far as I

can conclude, these findings are important for educational management to contemplate, in the design of their human resources management practices, strategies that favor enhancing the skills of their employees and their job satisfaction, this in the interest of improving their educational performance.

Keywords: academic quality, educational performance, teaching, higher education, university.

Resumo

A educação desempenha um papel central na formação de capital humano nas nações, particularmente no México. O objetivo deste estudo foi analisar a relação de práticas em gestão de pessoas, como variáveis de satisfação no trabalho, comprometimento organizacional, competência de capital humano e seus efeitos no desempenho de instituições de ensino superior. O desenho metodológico foi abordado com abordagem quantitativa, explicativa, não experimental e transversal. Um questionário foi aplicado a executivos de instituições públicas e privadas, que concordaram em responder ao instrumento. Uma amostra final de 84 entrevistados foi formada. O modelo de equações estruturais foi aplicado, utilizando a técnica de mínimos quadrados parciais, para avaliar as relações estabelecidas nas hipóteses desta pesquisa. De acordo com os resultados, determinou-se que capital humano e satisfação no trabalho são duas variáveis que contribuem positivamente para o desempenho educacional. Ambas foram consideradas práticas valiosas na gestão de pessoas, relacionadas à garantia de que os funcionários tenham experiência, habilidades e conhecimentos para sua função e que se esforcem ao máximo; vinculado à promoção do trabalho em equipe e aprendizado contínuo; É necessário que haja liberdade de expressão e reconhecimento por um trabalho bem-feito, bem como a possibilidade de crescer na organização e, entre outros, para que as sugestões apresentadas sejam levadas em consideração, pois isso contribui para melhorar a imagem institucional, a qualidade dos processos e serviços educacionais, a formação de qualidade dos alunos, bem como a consecução dos objetivos e indicadores acadêmicos. Portanto, em conclusão, esses achados são importantes para a gestão educacional contemplar, no desenho de suas práticas de gestão de recursos humanos, estratégias que favoreçam o empoderamento de seus funcionários e a satisfação no trabalho. Isso para o benefício de melhorar seu desempenho educacional.

Palavras-chave: qualidade acadêmica, desempenho educacional, ensino, ensino superior, universidade.

Introduction

Education plays a central role in the formation of competitive human capital in the current context. Nations (particularly Mexico) face a series of economic, social, environmental, cultural, technological and political challenges that justify the fact that the efforts of higher education institutions (HEIs) are developed with a view to a future vision, where its results are of strategic impact for the good of the individual in particular, as well as of society in general. In this regard, based on Pantoja Aguilar (2019), administrative management and leadership are of utmost importance for the achievement of effective performance in public universities, since both practices ensure that university governance contributes to improving administrative work and, by consequence, academic results, within the framework of limitations of financial resources and the requirement of academic quality by the authorities and society in general (Ganga, Ramos, Leal and Valdivieso, 2015).

In this sense, the formation of a more competitive society is estimated as a product of the competence of the people who are part of it. Therefore, higher education in this country, as in other societies of the world, represents a key and decisive factor. In the words of Fernández (2017), it is an intangible asset of “strategic character for nations, as it is the indissoluble link between the generation of highly trained human capital and the production and dissemination of knowledge that favor the formation of societies more fair and more competitive economies ”(p. 184).

Therefore, the relevance of the management of intangibles of an organization, in particular intellectual capital, cannot be ignored in the current context, since they represent intangible assets such as employee knowledge, organizational learning, culture and commitment, organizational relationships with stakeholders (customers, suppliers, society, government, associations), intellectual property generated (patents, brands, industrial designs, utility models, as examples referred to), sociotechnical systems, administrative manuals, bases data and information systems; all those resources and capacities that are not normally clearly manifested in the financial statements of economic entities, but that their effective management can have positive effects on the performance of organizations, as well as strategies to survive or generate advantages in their market (Bontis, 1998, 2001; Bontis, Chua Chong Keow y Richardson, 2000; Bontis y Serenko,

2009; Gogan, Artene, Sarca y Draghici, 2016; Hashim, Osman y Alhabshi, 2015; Hussinki, Ritala, Vanhala y Kianto, 2017).

According to the literature analyzed (Bontis, 1998; Bontis, 2001; Bontis et al., 2000; Bontis and Serenko, 2009), when categorizing intellectual capital, the most accepted typology is what establishes three dimensions of this construct: the human, structural and relational. Within the framework of this typology, Bontis (2001) makes the approach that human capital is the central component of intellectual capital, since this intangible asset belongs practically and mostly to workers, in such a way that if they retire they take their Know how with them. Hence the relevance of organizations being interested in establishing strategies to capture the tacit knowledge of employees, in order to document, socialize and manage it strategically to make it their property.

Therefore, in this research the emphasis is placed on personnel management (human capital dimension), as it represents one of the key variables to improve the quality of the teaching-learning process of students, especially because the assets that They provide HEIs are intangible by nature, as is the educational service. Undoubtedly, it is urgent that these types of organizations, so that they are competitive, enhance their intangible assets from their human capital, have the managerial capacity to manage those resources and skills for the sake of educational performance (Conde and Martín, 2016; González, López and Sánchez, 2014). Above all, because in recent times the administration of human resources has aroused greater interest and importance in organizations that offer public services, in order to improve the performance of the tasks they provide to society (Rodríguez, Retamal, José and Cornejo, 2011).

Thus, the objective of this study is to analyze the variables of organizational commitment and job satisfaction as factors that facilitate the effectiveness of the competition of human capital towards the best performance of HEIs, entities that have a great responsibility to contribute to transform a society. Therefore, the following questions are established:

PI1: What is the relationship between job satisfaction of human capital and the performance of the studied HEIs?

PI2: What is the relationship between the organizational commitment of human capital and the performance of the studied HEIs?

PI3: What is the relationship between the competition of human capital and the performance of the studied HEIs?

And to achieve the purpose of this study, a quantitative investigation was carried out, through the collection of data through a questionnaire. This instrument was applied to executives of the institutions, thanks to which an information base was formed that, through the model of structural equations, allowed to explore the predictive relationships of independent and dependent variables in the participating public and private universities.

This research report is structured in four main sections. First, the literature analyzed from the context of higher education in Mexico is described, and then the conceptual framework of educational performance and its explanatory variables (job satisfaction and organizational commitment of human capital) is given. Later, in a second section, the methodological design that was planned to carry out the investigation is described, in which the type of study, the techniques of data collection and their analysis are exposed. In section three, the main results are presented. And finally, in the fourth section, we give way to the discussion, conclusions and implications of the study.

General context of higher education in Mexico

In order to have a greater development in its productivity and competitiveness in Mexico, it is necessary to boost the coverage and quality of higher education. This as a strategy to form human capital with the qualifications demanded by the changing labor market, since it is estimated that in modern economies it is a key factor for students to develop specialized technical, professional, transversal and disciplinary skills that qualify them to perform in various labor fields, according to the Organization for Economic Cooperation and Development [OECD] (2019). From the perspective of the OECD itself (2017), it is visualized that this country faces an uncertain external environment, where the world economy shows little growth. In addition, it suffers from lags and inequalities in its development and growth, due to its dependence on oil, its low prices, due to low productivity, corruption problems and the quality of education.

According to data from the United Nations Organization for Science and Culture [Unesco, cited in Fernández, 2017, p.185], despite the great advances that Mexico has made in terms of coverage in higher education, continues with the need to improve this indicator in relation to other nations. In this regard, it is pointed out, for example, that this country ranked last in coverage among OECD members who reported data during 2014 (Fernández, 2017).

Likewise, the OECD (2019) reports that the management of higher education in Mexico has to face the challenge that graduates of this system have the skills demanded by the economy and labor market, in order to align the supply of human talent in terms of competitive quality. Another challenge of this system refers to the subsystems that have this level have important differences in government governance, financing and influenza; which produces weak and insufficient results, mainly due to the absence of a regulatory framework and public policies that ensure effective cohesion of the resources and capacities of the actors and institutions that make up this education system in the country (Fernández, 2017; OCDE, 2019).

Following Fernández (2017), the assignment for the effectiveness of the higher education system in Mexico is put into the planning and strategic management of six major performance factors: 1) coverage and equity, 2) relevance, 3) evaluation of quality, 4) academic career, 5) financing and 6) the issue of governance. It is precisely in the academic career factor that there is interest in the present study, which tries to analyze factors related to the management of human capital in the institutions of this level, since it is the professors who have the direct responsibility to contribute in the training of university students. In that same trend, Nahid Naderi (2012) emphasizes that teaching skills, personality attributes, tools and techniques in their teaching practice can contribute to the achievement of effective results in educational institutions. Faced with this challenge, it is estimated that human capital in the context of education brings together teaching competences, teaching-learning skills, knowledge and pedagogical-didactic experience, values and attitudes of commitment in the training of its students (Bontis , 2001; Bontis and Serenko, 2009; Budovich and Nadtochiy, 2019; Linda and Fitria, 2019; Nava and Mercado, 2011; Pedraza, Lavín, Marmolejo, Vasconcelo and García, 2017). In our times, human capital represents the factor and source of wealth for nations (Rubio, 2016).

In addition, according to García, Pérez and Miranda (2018), modernity poses great challenges for public universities in Mexico; a scenario in which effective linking can contribute to the achievement of the objectives of this type of institutions, its continuous improvement and its main mission, which is to contribute to meet the demands of its environment, from its inherent social responsibility, and where the Human capital has an important role. For example, the research professors who participate in the strategies and processes of technology transfer and knowledge are mentioned, since in the present times such actions and results are expected from public universities (applied research, effective linking, entrepreneurial universities , social responsibility

in its performance, technological innovation, generation and pertinent transfer of knowledge). Thus, HEIs cease to be an institution that only dedicates itself to training professionals to move to the demands of seeking to generate their own resources, according to the educational market they serve (García et al., 2018).

Therefore, it is estimated that the link with the productive-social sector is an indispensable action in the relevant training of students, as well as in the effective contribution of teachers and researchers in HEIs, since it is the mechanism that enables collaborative work and socially pertinent for the solution of different problems of local, regional and national nature, by promoting the generation, application and transfer of effective knowledge to the real needs that demand attention for the sustainable development of our society (Alcántar and Arcos, 2009; García et al., 2018). This is just a sample of the relevance of studying organizational performance, precisely in the context of higher education, to contribute from the academy to improve the results in the medium term of higher educational performance in the different HEIs of the country.

Job satisfaction of human capital in the performance of higher education

Cantón and Téllez (2016) underline the importance of analyzing job satisfaction in the educational field, due to the implications it has on teacher performance, since it directly affects the effectiveness of their profession and performance (Anaya and López, 2015; Spector, 1985). From the perspective of the theory of social needs, satisfaction develops according to the degree to which personal expectations are covered by the employment situation (Cantón and Téllez, 2016), which generates emotions in the employee. This undoubtedly represents a complex issue in the management of human capital, but, in one way or another, educational management requires analyzing these feelings in order to promote and maintain positive and favorable work environments for teachers (Hernández and Ramos, 2018).

Job satisfaction represents an emotional state, a product of the appreciation that employees are trained about how much their jobs and the organizations where they provide their services provide them with stimuli that cover their needs and expectations in exchange for what they contribute to the organization; Thus, an emotional relationship or emotional state is generated towards the work that is reflected in the taste for what it does (Anaya and López, 2015; Cernas, Mercado and Davis, 2018; González et al., 2014; Locke, 1969; Lupano and Castro, 2018; Rodríguez et al., 2011). According to Spector (1985), it is a construct that refers to the group of

attitudes of employees that is formed from the valuation that they make of factors such as remuneration, complementary benefits, co-workers, work environment, communication and supervision and work standards, just to mention some aspects that will contribute to the favorable satisfaction of the employees of an organization (Nahid, 2012; Taliadorou and Pashiardis, 2015).

In this sense, it is to be assumed that if workers perceive that in exchange for their efforts they receive tangible and intangible recognition for their performance, an adequate emotional state and job satisfaction is presumed, which translates into a positive attitude in the execution of their roles and responsibilities, and this, at the same time, will be reflected in their performance and in the services they provide to the users of the institution, since it is expected that their positive emotional state will result in a better service to the end customer, which in the educational context are the students (Hernández and Ramos, 2018; Rodríguez et al., 2011; Spector, 1985). However, care must be taken regarding this construct, since, as a result of the person's emotions, it implies a grouping of feelings capable of producing psychological changes, which determine the behavior and thinking of workers in the organization (Hernández y Ramos, 2018)

Hence the interest of considering in the scope of this study to contemplate as one of the explanatory variables of educational performance in HEIs analyzed precisely to job satisfaction, and from there recognize that there are factors that also tend to explain or determine the satisfaction of teachers, such as those related to gender, salary, type of school (public or private), age, teaching experience, among others (Nahid, 2012). Therefore, it must be borne in mind that teacher satisfaction or dissatisfaction can be generated or affected by the absence or lack of autonomy in their work, by school changes and reforms, due to the public image of teachers, the lack of resources to perform, the payment of a salary perceived as unfair, the leadership style exercised by managers, among other indicators that affect this emotional state of an organization's staff (Taliadorou and Pashiardis, 2015). In relation to job satisfaction, it has been determined that this is positively and significantly related to performance or productivity (Cernas *et al.*, 2018; Lupano y Castro, 2018; Rodríguez *et al.*, 2011).

The organizational commitment of human capital in higher level educational performance

Another of the variables proposed to study in this research refers to the organizational commitment. It should be emphasized that this construct was thought of because of the importance that reflects the delivery and identity of employees with their organization. If workers express loyalty and commitment to their institutions, this link is not only estimated to reflect job satisfaction, but goes further: it would be showing that employees feel part of the institution and, therefore, commit to achieving the organizational objectives, since a committed employee is a valuable asset that guarantees, in the long term, its permanence and its contribution towards obtaining the organizational results, because it has generated feelings and an emotional bond with its institution (Allen and Meyer, 1996 ; González et al., 2014).

According to Allen and Meyer (1996), the organizational commitment is a multidimensional variable that represents the psychological link between the worker and his organization, which makes it possible to generate ties between both actors, and where if that union is strong, then it is very employees are unlikely to leave the institution (Allen and Meyer, 1990; Cernas et al., 2018). Then, the concept of commitment can be interpreted as “a psychological state that characterizes the relationship between a person and an organization, which has consequences regarding the decision to continue in the organization or leave it” (Arias, Varela, Loli and Quintana, 2003 , p.16), or as “the force with which an individual feels linked to an organization and that implies the follow-up of a course of action relevant to the organization” (Chiang, Núñez, Martín and Salazar, 2010, p .92), so it is inferred that the greater the organizational commitment, this will be reflected in job satisfaction and hence in the achievement of objectives and organizational performance (Araya, Figueroa, Grandón, Ramírez and Alfaro, 2018; Cernas et al., 2018; Lupano and Castro, 2018).

It is estimated that the staff of educational institutions is responsible for contributing to the formation of competitive human capital for the future of a society. And to analyze how much they feel committed to their organizations is strategic in our times, since that psychological state is stronger, the better in the formation of the competencies of the students will have, and thus it will be favored to comply with the qualifications that demand the labor market This study is particularly interesting in particular because of the approach of the research topic outlined. Since it relates to background variables to address the management of human capital in educational institutions.

Among these factors, Bontis and Serenko (2009) point to job satisfaction and organizational commitment as elements that contribute to the administration of human resources and that can favor a work environment for the exchange of knowledge, which impacts retention of staff and their contribution towards the organization, through the capacity for innovation in processes, services and products.

It has been found in previous studies that job satisfaction and teachers' organizational commitment show significant positive relationships (Nahid, 2012; Lupano and Castro, 2018). Therefore, it is important to manage human resources practices that strengthen their employees more and more; better valuations of these constructs, so that their performance contributes to the achievement and competitiveness of HEIs. As already mentioned, the more job satisfaction is perceived by employees, the greater their commitment to the organization, which favors generating and sharing knowledge. It is also found that the organizational commitment of workers favors job retention and organizational performance (Bontis and Serenko, 2009). Hence the importance of analyzing both constructs, which are job satisfaction and the organizational commitment of human capital, for the positive and significant relationships that have been identified between both variables (Cernas et al., 2018), in addition to their association with variables of productivity, welfare and permanence of workers in organizations (Cernas et al., 2018), as well as in achieving better results in profitability and organizational performance (Lupano and Castro, 2018).

In this sense, this study is positioned in the discussion of the importance of human capital management (teachers) for educational achievement and the continuous improvement of the quality of education, due to the impact they have on the professional training of students (Montanares and Junod, 2018), since they have that immediate responsibility and, therefore, this contributes to a large part of the educational results in public universities. Human capital represents that dimension of intellectual capital that implies the set of skills, experiences, knowledge, aptitudes and attitudes (Bontis, 1998; Bontis, 2001; Bontis and Serenko, 2009), which, effectively managed, is attractive for generate a commitment to organizational results. As other studies conducted in different contexts indicate, this group of intangible assets has positive impacts on the performance of organizations. (Bontis y Serenko, 2009; Gogan *et al.*, 2016; Hashim *et al.*, 2015; Hussinki *et al.*, 2017).

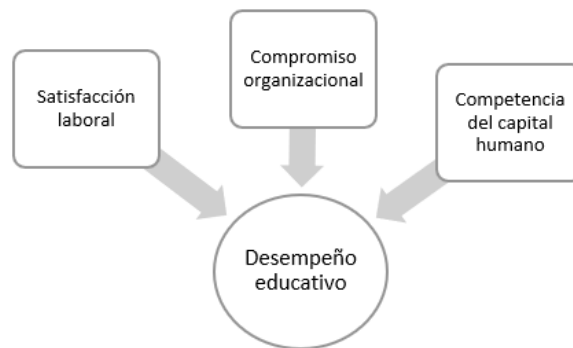
Therefore, within the framework of the ideas presented in this section of literature, the theoretical model of the study is presented immediately (figure 1), with the corresponding research hypotheses:

HI1: Job satisfaction is positively and significantly related to educational performance in HEIs.

HI2: The organizational commitment is positively and significantly related to educational performance in HEIs.

HI3: The competition of human capital is positively and significantly related to educational performance in HEIs.

Figura 1. Modelo teórico de variables explicativas del desempeño educativo en IES



Fuente: Elaboración propia con base en Bontis y Serenko (2009)

Material and method

This study was developed from a quantitative approach, characterized by being transactional, non-experimental and explanatory in scope (Hernández, Fernández and Baptista, 2014). A questionnaire was applied to 90 IES executives, who voluntarily agreed to participate in the investigation (convenience sample). Due to the lack of response in various questions of the questionnaire, which represented more than 30% (Hinkin, 1995), six were eliminated. Therefore, the non-probabilistic sample was 84 respondents. It was decided to use the questionnaire as a means to collect data, on the grounds that it is the recurring technique in measuring abstract aspects such as the organizational climate, job satisfaction, human capital skills and its impact on organizational performance (Zenteno Hidalgo and Durán, 2016).

The design of the questionnaire included five sections focused on collecting data on the four variables under study, and a section that was used to gather general information about the respondents and their institutions (position, seniority, gender, age, schooling, public or private sector of HEI). The collection of the information was carried out in the period from March to June 2019, prior to an official request submitted to the directing authorities; Several visits were required to apply the questionnaire to the staff who voluntarily decided to answer the instrument.

Regarding the validity of content, it is specified that the questionnaire designed for this study was based on the review of previous theoretical and empirical studies on the four variables of interest (Bontis, 1998; Bontis, 2001; Bontis and Serenko, 2009; Hernández , Méndez and Contreras, 2014; Pedraza, 2018), which represented the basic reference to develop and subsequently validate the scales of organizational commitment, job satisfaction, human capital and organizational performance (table 1).

With the data collected, descriptive statistics (means, percentages) were used to present the main characteristics of the respondents and their HEIs, as well as to describe the appreciation of the indicators of the independent variables and dependent on the study model. In order to validate the hypotheses of this research, which established positive and significant relationships between the independent variables (organizational climate, job satisfaction, human capital) and the organizational performance dependent variable in the HEIs analyzed, it was applied, based on Ruíz, Pardo and San Martín (2010), structural equation modeling (SEM), using the partial least squares technique (PLS) also for its power to study several relationships simultaneously between variables (Martínez y Fierro, 2018).

Tabla 1. Medición de las variables de interés

Variables	Preguntas	Escala	Referentes para fundamentar el diseño de medición
Satisfacción laboral (VI) Compromiso organizacional (VI) Capital humano (VI)	8 5 11	Tipo Likert, que va de uno (nunca) a cinco (siempre)	(Allen y Meyer, 1990; Allen y Meyer, 1996; Anaya y López, 2015; Bontis, 2001; Bontis y Serenko, 2009; Cantón y Téllez, 2016; Hernández <i>et al.</i> , 2014; Pedraza, 2018)
Desempeño educativo (VD)	14	Tipo Likert, que va de uno (pésimo) a cinco (superior)	(Bontis, 1998; Bontis, 2001; Bontis <i>et al.</i> , 2000; Bontis y Serenko, 2009; Gogan <i>et al.</i> , 2016; Hashim <i>et al.</i> , 2015)

Nota: VI = Variable independiente; VD = Variable dependiente.

Fuente: Elaboración propia con base en los autores en la tabla citados

The advantage of SEM is that it allows studying the effect of several independent variables on another dependent (multivariate analysis); Therefore, for this investigation, the technique applied was that of PLS, as already mentioned, based on the general objective of inquiry that has been to study precisely the complexity of relations with methods of recognized statistical power (Martínez and Fierro, 2018), and in particular due to the sample size and the ordinal measurement of the variables, as is the case of the present analysis (Hair, Hult, Ringle and Sarstedt, 2014; Mondéjar, 2017). In the application of this technique, Smart PLS software version 3.8.2 was used.

The SEM seeks to analyze in the reflective measurement model (external) and the factor loads of the indicators in relation to their latent variable, in addition to studying the criteria of reliability, convergent and discriminant validity; while in the structural (internal) model the causal relationships between the exogenous (independent) and endogenous (dependent) variables are evaluated, considering the t and p values of the relationships, and the power of the prediction with the coefficient r^2 (Gómez, 2011; Hair *et al.*, 2014).

Results

Exploring the predictive relationship of human capital management practices with educational performance

It was observed that of all respondents in HEIs who agreed to participate in this study, 45.2% are men and 54.8% are women. Half of the respondents occupy the teaching position, while the rest perform administrative and academic management activities in their institutions, so that a balanced participation of both roles in the organization is determined. In addition, the vast majority of respondents (60%) are more than five years old in the HEI where they provide their services; Or what is the same, only 40% of them have less of that time in their educational organizations. Regarding the age of the respondents, it was identified that a low percentage (8.3%) are between 18 and 33 years old; the vast majority of them are over 34 years old (91.70%).

It was also found that 15.5% have only undergraduate studies, while the vast majority have postgraduate education (84.5%). The educational institutions where the employees surveyed provide their services correspond with 75% to the public sector and 25% to the private sector. Regarding the number of years in which HEIs operate in the educational market, it was observed that the majority have more than 10 years providing their services to the educational community (89.3%) and only a smaller percentage have less than that amount with their educational offer to society (10.7%). It should be noted that 14.3% of HEIs are located in the northern part of the state of Tamaulipas and 85.7% in the center of this country's federal entity.

Once the descriptive data of the respondents and their institutions was analyzed, the measurement model in the present study was passed, a step necessary to determine the reliability and validity of the constructs involved. The relevant indicators of reliability, which are Cronbach's alpha and compound reliability (both minimum 0.70) and convergent validity, which is the average extracted variance (minimum 0.50), were calculated. Acceptable values were verified for the four latent variables, as can be seen in Table 2, where the internal consistency indices (Cronbach's alpha and composite reliability) are located above the acceptable value (0.70); Convergent validity is also complied with, since the mean extracted variance (AVE) in all variables exceeded the minimum of 0.50.

Tabla 2. Indicadores de fiabilidad y validez convergente del modelo de medida

Constructos	Alfa de Cronbach	Fiabilidad compuesta	AVE
Capital humano	0.935	0.945	0.632
Compromiso organizacional	0.865	0.907	0.711
Satisfacción laboral	0.881	0.913	0.677
Desempeño educativo	0.953	0.958	0.622

Fuente: Elaboración propia

For the discriminant validity of the measurement model, the Fornell-Larcker criterion was applied, which establishes that the values of the main diagonal (square root of the AVE), with respect to the correlations of the model variables, show indexes in all the cases greater than the rest of the values in the corresponding column (Hair et al., 2014). In this way, it is observed that this validity indicator is met in table 3.

Tabla 3. Validez discriminante del modelo de medida

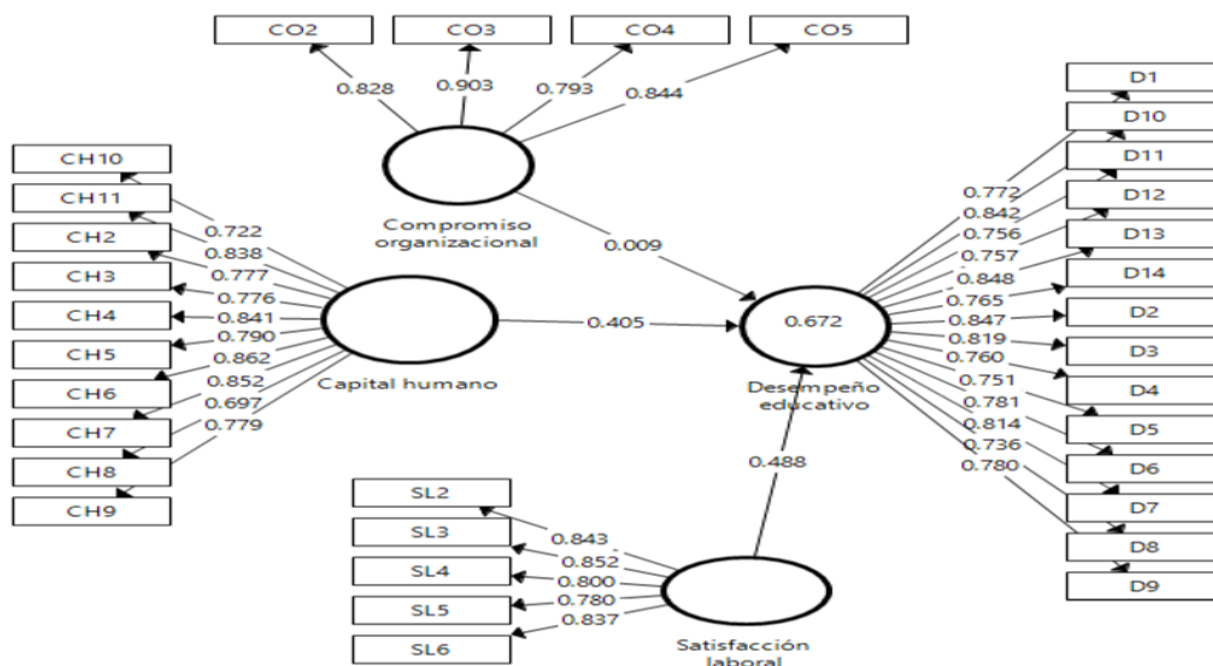
Constructos	Capital humano	Compromiso organizacional	Desempeño educativo	Satisfacción laboral
Capital humano	0.795			
Compromiso organizacional	0.484	0.843		
Satisfacción laboral	0.732	0.488	0.789	
Desempeño educativo	0.662	0.581	0.761	0.823

Fuente: Elaboración propia

Once the analysis of the measurement model schematized in the route graph (figure 2), the hypotheses raised were validated. It should be noted that several reagents were eliminated in the three independent variables, since they did not achieve a factor load equal to or greater than 0.70 (Hair et al., 2014). For example, the CH1 reagent was left out in human capital ("In this organization, employees express new ideas to improve processes and services"); of the variable of organizational commitment was the CO1 ("I feel as if the problems of this organization were mine"); while the job satisfaction were three reagents, namely SL1 ("Freedom to choose their own method of work"), SL7 ("Variety of tasks performed in their work") and SL8 ("Stability in

employment"). No reagent was eliminated from the educational performance variable: the 14 designed to measure this construct were preserved. After evaluating the quality of the measurement model, it was transferred to the second phase of the analysis process, which consisted of the evaluation of the structural model (Gómez, 2011; Hair et al., 2014). For this, the following aspects were taken into account: 1) evaluate the statistical significance of the hypothesis (bootstrapping), defining statistically significant variables (table 4) when the T statistic is greater than 1.96; 2) accuracy of predictions (indicator r²); 3) size of the f² effects, and 5) the predictive relevance of the model using the q² statistic. For this research, the value of R² is considered good and indicates that the educational performance in the studied HEIs is explained in 67%, as identified in Figure 2.

Figura 2. Modelo explicativo del desempeño educativo en IES analizadas



Fuente: Elaboración propia

In Table 4, on the other hand, it can be observed that, based on the results generated with the bootstrapping procedure, only two of the three hypotheses raised in this investigation are accepted (HI1 and HI3), and that, consequently, only Job satisfaction and human capital tend to explain the educational performance in the HEI analyzed. Regarding the organizational

commitment, it is not confirmed that it is an explanatory variable of performance in the present study (the p-value was greater than 0.10).

Tabla 4. Valores *t* y *p* para validar hipótesis de la relación del capital humano, satisfacción laboral y compromiso organizacional con el desempeño educativo en las IES

Hipótesis	Relaciones	Valor t	Valor p	Hipótesis
HI1	Satisfacción laboral -> Desempeño educativo	5.61	0.000	Se acepta
HI2	Compromiso organizacional -> Desempeño educativo	0.09	0.92	No se acepta
HI3	Capital humano -> Desempeño educativo	4.277	0.000	Se acepta

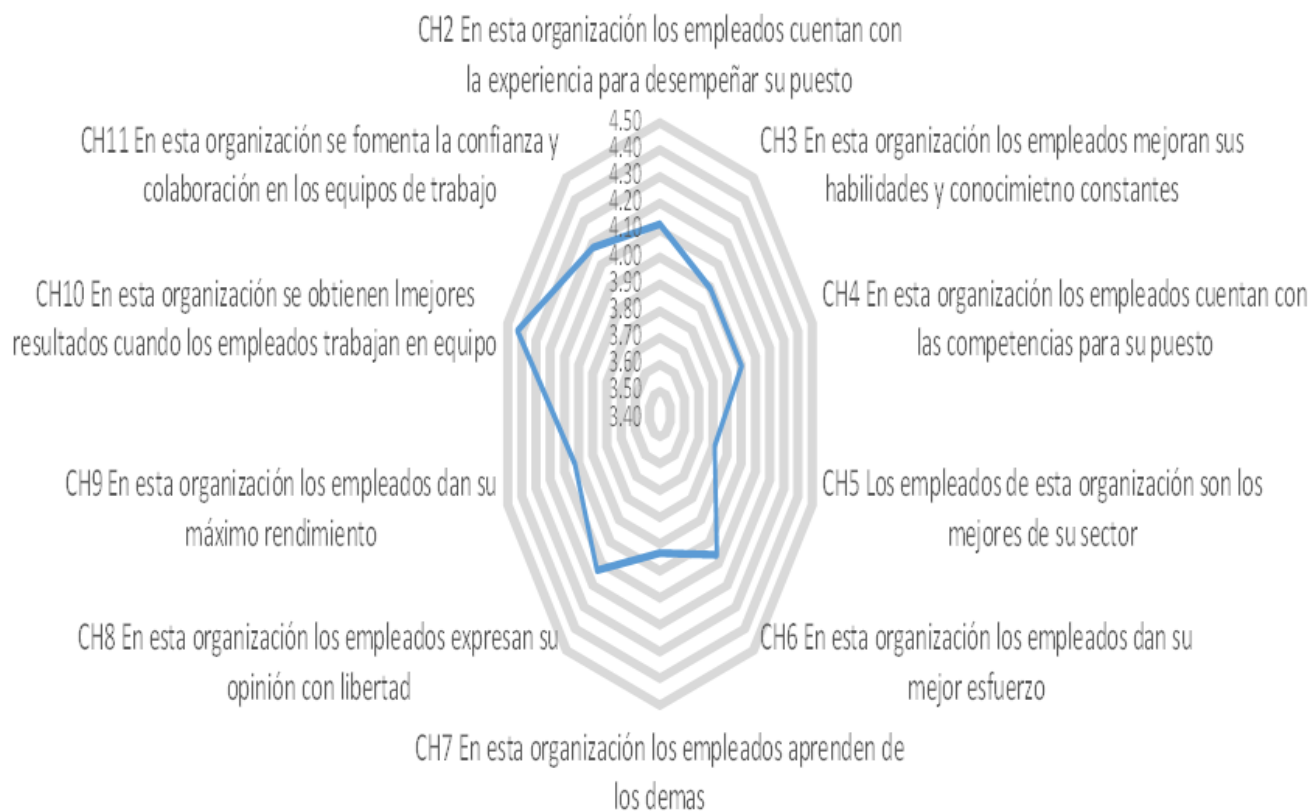
Nota: HI1: Hipótesis de investigación.

Fuente: Elaboración propia

Subsequently, once it was determined that only two of the explanatory variables tend to show a positive and significant relationship towards the performance in the analyzed HEIs, the respondents' assessment of the aspects considered in each of the variables was shown. of human capital, job satisfaction and educational performance. In general, it was found that, following the perception of the respondents, they favorably value in their institutions the aspects of the three constructs, since their general averages were at level 4 (human capital = 4.05; job satisfaction = 4.14, educational performance = 4.10).

Specifically, it was observed that in the human capital construct everyone values positively the aspects that employees have experience, improve their skills and constant knowledge, have the skills for their position, that are the best in the sector, that they give their best effort, that they learn from others, that they have the opportunity to express themselves freely, that they give their maximum performance and have high esteem of the team because trust and collaboration are fostered (figure 3). Hence the relevance of continuing to strengthen strategies that contemplate these aspects in human resources management practices by educational management.

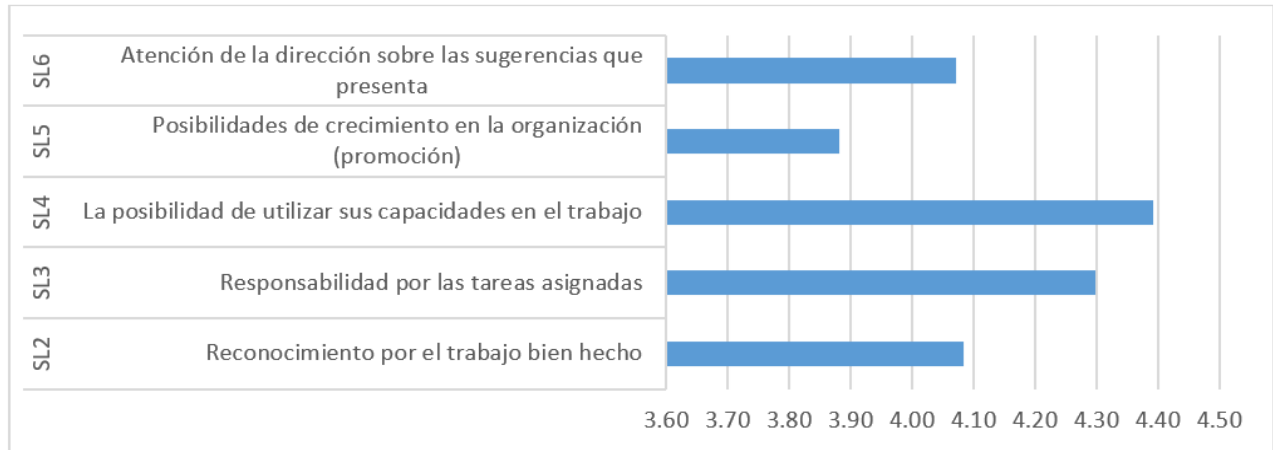
Figura 3. Valoración de los aspectos del constructo de capital humano desde la percepción de los encuestados



Fuente: Elaboración propia

Regarding the job satisfaction variable, it was identified that the aspects assessed by the respondents require personnel management practices that the managers of HEIs should take into account, because they represent very well qualified indicators by the respondents. For example, aspects of providing recognition for a job well done, responsibility for assigned tasks, the possibility of using their abilities in the performance of their work, the possibilities of growth in the organization and management attention about of the suggestions they present; all evaluated favorably, as can be seen in figure 4.

Figura 4. Valoración de los aspectos del constructo de satisfacción laboral



Fuente: Elaboración propia

Regarding the construction of educational performance, the administrative and educational respondents also favorably rated the results they appreciate of the performance of their institution, since the 14 aspects scrutinized were found in averages of four based on the Likert scale that they were showed to issue its evaluation, which can be seen in table 5 in detail. Among the descriptive results to be highlighted are the importance given in terms of performance in aspects of institutional image, quality of processes and services, quality training of students, the achievement of academic objectives and indicators and a factor that is of interest Currently, the one concerning the linkage of HEIs with the productive sector and society in general.

Tabla 5. Valoración del desempeño educativo en las IES analizadas

Reactivo	Descripción	Media
D1	Imagen de la institución y servicios	4.27
D2	Calidad académica de los procesos y servicios educativos proporcionados	4.35
D3	Formación de calidad de los estudiantes	4.24
D4	Valor añadido a los procesos y servicios otorgados	4.07
D5	Satisfacción de los usuarios con los procesos y servicios proporcionados	4.11
D6	Logro de objetivos e indicadores académicos alcanzados	4.17
D7	Calidad en los procesos servicios proporcionados	4.23
D8	Nivel de tecnología incorporados en los procesos-servicios educativos	4.08
D9	Productividad de los empleados	3.98
D10	Eficiencia en procesos y actividades de gestión	3.96
D11	Aplicación de los recursos públicos	3.99
D12	Mejora en la coordinación de procesos internos	3.94
D13	Innovación continua en los procesos servicios educativos	3.99
D14	Vinculación con el sector productivo y sociedad en general	4.08

Fuente: Elaboración propia

Discussion

It has been observed with the results of the present study that intangible aspects are valued in personnel management practices, and that they have positive effects on the performance of organizations in general (Figure 2). With the modeling of structural equations, it was confirmed that the latent variables of job satisfaction and human capital competencies have positive and significant relationships with the performance in the analyzed HEIs.

The findings, as such, are empirical evidence that confirm what has been said in the literature: job satisfaction tends to influence the work and organizational performance of the entities; This predictive relationship is confirmed in the present investigation (Anaya and López, 2015; Cantón y Téllez, 2016; Cernas et al., 2018; González et al., 2014; Lupano and Castro, 2018; Rodríguez et al., 2011)

Thus, as has been said in previous studies, human capital is a key component of intellectual capital (Bontis, 2001), which tends to explain or contribute to organizational results (Bontis, 1998; Bontis, 2001; Bontis and Serenko, 2009; Gogan et al., 2016; Hashim et al., 2015; Hussinki et al., 2017). In that sense, this hypothesis is also accepted in the present analysis, which provides empirical evidence from the context of higher education. In the present investigation it is observed that, from the perception of the managers surveyed, the competences of the staff of their universities influence the achievement of their academic indicators.

Something interesting, and at the same time contrasting, and that has to do with the hypothesis that the organizational commitment helps explain educational performance, was that it was determined that there is no significant relationship between the two constructs; However, it is empirical evidence that provides a sense of interest to carry out qualitative research, in order to understand more this phenomenon that in the literature is considered valuable and as part of the practices that must be promoted in management of human capital (Allen and Meyer, 1990, 1996; Lupano and Castro, 2018), for their contribution to identity and belonging to the organization, but which was not observed as a variable that contributes to explain the performance in the analyzed HEIs, This contrasts with the assumption that employee engagement contributes to the performance of organizations.

Conclusions and implications of the study

As teachers, you have a great responsibility in the higher education system to form highly competitive human capital in order to achieve their relevant insertion in the labor market and in the contribution that they will have to make for the development of society. This implies studying the different phenomena that affect their performance and effectiveness within the educational organizations. Faced with this challenge, and because of the key mission that universities have in society, it is essential to know if these educational entities effectively manage their resources and capacities; in this case, the intangible assets that they possess in the form of knowledge, skills,

experience of their human capital; and if they mobilize work environments that strengthen job satisfaction and organizational commitment so that, effectively managing those intangible assets, they have superior performances and added value in their educational processes, products and services that they provide to students and society in general.

Hence, the main interest of this research has been to contribute from the academy to continue contributing knowledge, from other contexts and units of analysis, on the phenomenon of intellectual capital, specifically in the human capital component, as well as management practices of staff (job satisfaction and organizational commitment) and their contribution to organizational performance. In order that the managers of Mexican educational organizations, and specifically those located in Tamaulipas, visualize the value of intangible assets, in order to break the traditional paradigm that prevails on the measurement of the performance or performance of organizations from exclusively of financial indicators. Therefore, it is necessary to deepen the understanding and specialization of the object of study, so that they improve the management of their human resources practices for the good of their own organizations, but fundamentally for the benefit of quality training of students and students. its effective relationship with society.

In this investigation, three hypotheses related to personnel management practices were made, which refer to variables that are considered important for employees to develop in suitable work environments, considering among those topics of interest to job satisfaction, Organizational commitment and human capital competencies as intangible factors that may ultimately influence the performance of organizations.

Within this hypothesis framework, it was possible to observe in the present study that only job satisfaction and human capital competence showed a positive and significant relationship with the performance in the HEI analyzed. This must be taken into account mainly by the managers of the higher education schools analyzed, since, as discussed in this article, human capital is the central component of intellectual capital, because knowledge, experience, skills and Other knowledge is owned by the employees, and if they cease to remain in the organization, their know-how goes with them. Hence the relevance of designing and implementing effective human resources management strategies that foster and strengthen work environments conducive to generating job satisfaction. Hence also the relevance of organizations being interested in establishing strategies to capture the tacit knowledge of workers, in order to document, socialize and manage it strategically to make it their property.

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References

- Alcántar, V. M., & Arcos, J. L. (2009). La vinculación como factor de imagen y posicionamiento de la Universidad Autónoma de Baja California, México, en su entorno social y productivo. *Revista Electrónica de Investigación Educativa*, 11(1), 2-20. Obtenido de <http://redie.uabc.mx/vol11no1/contenidoalcantar2>.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 301-320. doi:<http://dx.doi.org/10.1111/j.2044-8325.1990.tb00506.x>
- Allen, N. J., & Meyer, J. P. (1996). Affective, Continuance, and Normative Commitment to the Organization: An Examination of Construct Validity. *Journal of Vocational Behavior*, 49, 252-276. doi:<https://doi.org/10.1006/jvbe.1996.0043>
- Anaya, D., & López, E. (2015). Satisfacción laboral del profesorado de educación secundaria. *Revista de Investigación Educativa*, 33(2), 435-452. doi:<https://doi.org/10.6018/rie.33.2.202841>
- Araya, S., Figueroa, P., Grandón, E., Ramírez, P., & Alfaro, J. (2018). Explorando la relación Sistemas de Información y Rendimiento Organizativo, a través de la Satisfacción y Compromiso Laboral en Universidades. *Iberian Conference on Information Systems and Technologies, CISTI*, (págs. 1-4). doi:DOI: 10.23919/CISTI.2018.8399172
- Arias, F., Varela, D., Loli, A., & Quintana, M. (2003). El compromiso organizacional y su relación con algunos factores demográficos y psicológicos. *Revista de Investigación en Psicología*, 6(2), 13-25.
- Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. *Management Decision*, 36(2), 63-76. Obtenido de <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.24.9765&rep=rep1&type=pdf>

- Bontis, N. (2001). Assessing knowledge assets: a review of the models used to measure intellectual capital. *International Journal of Management Reviews*, 3(1), 41-60. Obtenido de <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.112.8365&rep=rep1&type=pdf>
- Bontis, N., & Serenko, A. (2009). A causal of human capital antecedents and consequents in the financial services industry. *Journal of Intellectual Capital*, 10(1), 53-69. doi:<https://doi.org/10.1108/14691930910922897>.
- Bontis, N., Chua Chong Keow, W., & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. *Journal of Intellectual Capital*, 1, 85-100. doi:<https://doi.org/10.1108/14691930010324188>
- Budovich, L., & Nadtochiy, Y. (2019). Teacher intellectual capital. Assessment approaches. *Revista Espacios*, 40(8), 2-27. Obtenido de <https://www.scopus.com/record/display.uri?eid=2-s2.0-85064767409&origin=resultslist&sort=plf-f&src=s&st1=intelectual+capital+&st2=&sid=36f5a8dcc8160feec1cc1f6a509b6780&sot=b&sdt=b&sl=35&s=TITLE-ABS-KEY%28intelectual+capital+%29&relpos=0&citeCnt=0&searchT>
- Cantón, I., & Téllez, S. (2016). La satisfacción laboral y profesional de los profesores. *Revista Lasallista de Investigación*, 13(1), 214-226.
- Cernas, D., Mercado, P., & Davis, M. (2018). Perespectiva futura de tiempo, satisfacción laboral y compromiso organizacional: efecto mediador de la autoeficacia, la esperanza y la vitalidad. *Journal of Work and Organizational Psychology.*, 34, 1-9.
- Chiang, M., Núñez, A., Martín, M., & Salazar, M. (2010). Compromiso del Trabajador hacia su Organización y la relación con el Clima Organizacional: Un Análisis de Género y Edad. *Compromiso del Trabajador hacia su Organización y la relación con el Clima Organizacional: Un Análisis de Género y Edad*, 28(40), 90-100.
- Conde, J., & Martín, A. (2016). Potencialidades y necesidades de mejora en la formación. *Revista Electrónica de Investigación Educativa*, 18(1), 140-152. Obtenido de <http://redie.uabc.mx/redie/article/view/767>
- Fernández, E. (2017). Una mirada a los desafíos de la educación superior en México. *Innovación Educativa*, 17(74), 183-207.

- Ganga, F. A., Ramos, M. E., Leal, A. G., & Valdivieso, P. E. (2015). Teoría de agencia (TA): supuestos teóricos aplicables a la gestión universitaria. *Innovar*, 25(57), 11-26. doi:doi: 10.15446/innovar.v25n57.50324
- García, O., Pérez, R., & Miranda, A. (2018). Los profesores investigadores universitarios y sus motivaciones para transferir conocimiento. *Revista Electrónica de Investigación Educativa*, 20(3), 43-55. doi:https://doi.org/10.24320/redie.2018.20.3.1754
- Gogan, L. M., Artene, A., Sarca, I., & Draghici, A. (2016). The Impact of Intellectual Capital on Organizational Performance. . *Procedia - Social and Behavioral Sciences*, 221, 194-202. doi:https://doi.org/10.1016/j.sbspro.2016.05.106
- Gómez, M. (2011). Estimación de los modelos de ecuaciones estructurales, del índice mexicano de la satisfacción del usuario de programas sociales mexicanos, con la metodología de mínimos cuadrados parciales. Tesis. México: Universidad Iberoamericana. Obtenido de <http://www.bib.uia.mx/tesis/pdf/015422/015422.pdf>
- González, F., López, T., & Sánchez, S. M. (2014). Satisfacción laboral y compromiso organizativo en los recursos humanos de la hostelería de Córdoba. *Intangible Capital*, 10(1), 89-211. doi:http://dx.doi.org/10.3926/ic.489
- Hair, J., Hult, G., Ringle, C., & Sarstedt, M. (2014). A primer on partial least squares structural equation modeling (PLS_SEM). Estados Unidos de América: SAG Publications, Inc.
- Hashim, M., Osman, I., & Alhabshi, S. (2015). Effect of Intellectual Capital on Organizational Performance. *Procedia-Social and Behavioral Science*, 211, 207-214. doi:https://doi.org/10.1016/j.sbspro.2015.11.085
- Hernández, C. A., & Ramos, J. R. (2018). La Inteligencia emocional y la práctica docente en profesores investigadores. *Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 9(17), 1-29. doi:DOI: 10.23913/ride.v9i17.387
- Hernández, R., Fernández, C., & Baptista, P. (2014). *Metodología de la Investigación*. México: McGraw Hill.
- Hernández, R., Méndez, S., & Contreras, R. (2014). Construcción de un instrumento para medir el clima organizacional en función del modelo de los valores de competencia. *Contaduría y*

- Administración, 59(1), 229-257. Obtenido de <https://dialnet.unirioja.es/servlet/articulo?codigo=5118462>
- Hinkin, T. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967-988. doi:doi: 10.1177/014920639502100509
- Hussinki, H., Ritala, P., Vanhala, M., & Kianto, A. (2017). Intellectual capital knowledge management practices and firm performance. *Journal of Intellectual Capital*, 18(4), 904-922. doi:<https://doi.org/10.1108/JIC-11-2016-0116>
- Linda, M., & Fitria, Y. (2019). The effect of intellectual capital on job satisfaction on bank employees. *Revista de Ciencias Humanas y Sociales*, 35(19), 1244-1265. Obtenido de <http://produccioncientificaluz.org/index.php/opcion/article/view/24080/24524>
- Locke, E. A. (1969). What is job satisfaction? *Organizational Behaviour and Human Performance*, 4, 309-336. doi:[http://dx.doi.org/10.1016/0030-5073\(69\)90013-0](http://dx.doi.org/10.1016/0030-5073(69)90013-0)
- Lupano, M. L., & Castro, A. (2018). Influencia de virtudes organizacionales sobre satisfacción, compromiso y performance laboral en organizaciones argentinas. *Interdisciplinaria*, 35(1), 171-188.
- Martínez, M., & Fierro, E. (2018). Aplicación de la técnica PLS_SEM en la gestión del conocimiento: Un enfoque técnico práctico. *RIDE Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 8(16), 130-164. doi:DOI: 10.23913/ride.v8i16.336
- Mondéjar, J. (29 y 30 de Noviembre de 2017). Modelos de Ecuaciones Estructurales con PLS (Partial Least Squares). Obtenido de V Jornadas de Investigación Científica del Turismo: <https://riuma.uma.es/xmlui/bitstream/handle/10630/14917/AN%C3%81LISIS%20CR%C3%8DTICO%20DE%20LAS%20FUENTES%20ESTADISTICAS%20DEL%20TURISMO.pdf?sequence=1>
- Montanares, E. G., & Junod, P. A. (2018). Creencias y prácticas de enseñanza de profesores universitarios. *Revista Electrónica de Investigación Educativa*, 20(1), 93-103. doi:<https://doi.org/10.24320/redie.2018.20.1.1383>
- Nahid Naderi, A. (2012). Teachers: emotional intelligence, job satisfaction, and organizational commitment. *Journal of Workplace Learning*, 24(4), 256-269. doi:<https://doi.org/10.1108/13665621211223379>

- Nava, R., & Mercado, P. (2011). Análisis de trayectoria del capital intelectual en una universidad pública Mexicana. *Revista Electrónica de Investigación Educativa*, 13(2), 166-187. Obtenido de <http://www.scielo.org.mx/pdf/redie/v13n2/v13n2a12.pdf>
- OCDE. (2017). ESTUDIOS ECONÓMICOS DE LA OCDE: MÉXICO 2017. OCDE.
- OCDE. (2019). Higher Education in Mexico: Labour Market Relevance and Outcomes, Higher Education. OECD Publishing, Paris, 1-44. doi:<https://doi.org/10.1787/9789264309432>
- Pantoja-Aguilar, M. P. (2019). Indicadores de desempeño académico como predictores de captación de recursos financieros. *Convergencia Revista de Ciencias Sociales*, 79, 1-27. doi:<https://orcid.org/0000-0002-8337-5427>
- Pedraza, N., Lavín, J., Marmolejo, J., Vasconcelo, R., & García, J. (2017). Caracterización del capital intelectual en el sector empresarial del estado de Tamaulipas, México. *Visión Gerencial*, 1, 119-143. Obtenido de <http://www.redalyc.org/jatsRepo/4655/465549683009/html/index.html>
- Pedraza, N. A. (2018). El clima organizacional y su relación con la satisfacción laboral desde la percepción del capital humano. *Revista Lasallista de Investigación*, 15(1), 90-101. doi:[10.22507/rli.v15n1a9](https://doi.org/10.22507/rli.v15n1a9)
- Rodríguez, A., Retamal, M., José, L., & Cornejo, F. (2011). Clima y satisfacción laboral como predictores del desempeño: en una organización estatal chilena. *Salud & Sociedad*, 2(2), 219-234. doi: <https://doi.org/10.22199/S07187475.2011.0002.00007>
- Rubio, A. (2016). Capital humano y sociedad de control. *Cuadernos de Filosofía Latinoamericana*, 37(115), 103-126. doi:[doi:10.15332/s0120-8462.2016.0115.04](https://doi.org/10.15332/s0120-8462.2016.0115.04)
- Ruíz, M., Pardo, A., & San Martín, R. (2010). Modelos de ecuaciones estructurales. *Papeles del psicólogo*, 31(1), 34-45. Obtenido de <https://www.redalyc.org/pdf/778/77812441004.pdf>
- Spector, P. E. (1985). Measurement of Human Service Staff Satisfaction. *American Journal of Community Psychology*, 13(6), 693-713. Obtenido de <https://link.springer.com/content/pdf/10.1007%2F00929796.pdf>
- Taliadorou, N., & Pashiardis, P. (2015). Examining the role of emotional intelligence and political skill to educational leadership and their effects to teachers' job satisfaction. *Journal of Educational Administration*, 53(5), 642-666. doi:<http://dx.doi.org/10.1108/JEA-02-2014-0025>

Zenteno Hidalgo, A., & Durán, S. (2016). Factores y prácticas de alto desempeño que influyen en el clima labora: Análisis de un caso. INNOVAR, Revista de Ciencias Administrativas y Sociales, 26(59), 119-135. doi:doi: <http://dx.doi.org/10.15446/innovar.v26n59.54367>