

<https://doi.org/10.23913/ride.v11i22.824>

*Artículos científicos*

## **Importancia atribuida en la Región Oriental de El Salvador a las competencias en administración de empresas consideradas por Tuning Latinoamérica**

*Perceptions of important competencies in Business Administration degrees in Eastern El Salvador*

*Importância atribuída na Região Leste de El Salvador às competências em administração de empresas consideradas pelo Tuning América Latina*

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### **Resumen**

El mundo del trabajo ha estado experimentando cambios debido a la globalización y al desarrollo tecnológico, lo que ha provocado en los profesionales la necesidad de estar interconectados e interdependientes. A esta situación se ha sumado la pandemia de covid-19, que ha exigido potenciar las competencias en el uso de plataformas virtuales y digitales para el trabajo en la modalidad no presencial o a distancia. Por tanto, el objetivo de esta investigación fue proponer una metodología para evaluar la pertinencia del plan de estudio de la carrera de Administración de Empresas y la congruencia de las competencias que adquieren los graduados con respecto a las percepciones de los grupos de interés en la Región Oriental de El Salvador.

Se trata de una investigación en la episteme positivista de la ciencia, con un enfoque con énfasis en el paradigma cuantitativo en la que participaron graduados entre los años 2010-2015, docentes y empresarios, a los cuales se les aplicó un cuestionario adaptado del Proyecto Tuning América Latina para determinar la importancia que confieren a las competencias genéricas para generar empleabilidad o capacidad de emprendimiento en los graduados en las condiciones del entorno laboral. El cuestionario aplicado fue sometido a pruebas para determinar si su diseño permitía un nivel de confiabilidad aceptable para recabar los datos que serían procesados estadísticamente y obtener la información para corroborar las hipótesis de la investigación. Los resultados demuestran una alta confiabilidad y validez con los estadísticos de alfa de Cronbach y de KMO de la metodología propuesta. La hipótesis nula de la prueba Kruskal-Wallis no se rechaza, lo que significa que los planes de estudio de la licenciatura en Administración están alineados según las percepciones de los empresarios, docentes y egresados. Como conclusión, la metodología propuesta puede servir de referencia para realizar estudios similares en diferentes contextos de la región con pruebas paramétricas y no paramétricas para adaptar los planes de estudio de las carreras universitarias a sus respectivos entornos empresariales, los cuales son cada vez más dinámicos y demandantes.

**Palabras clave:** competencias genéricas, educación superior, empleabilidad, pertinencia.

### **Abstract**

The world of work has been undergoing changes due to globalization and technological development, requiring professionals to be interconnected and interdependent. In addition, the Covid-19 pandemic has emphasized those competences related to the use of virtual platforms for work in non-face to face work or remote work. The objective of this research is to propose a methodology that allows evaluating the relevance of curriculum of the Business Administration degree and the congruence of the competences that graduates acquire with respect to the perceptions of interest groups in eastern El Salvador. This investigation employs a positivist epistemology and quantitative methods, adapting a questionnaire used by the Tuning Latin America, to survey graduates, teachers, and business sector professionals to determine the importance they assign to generic competencies to generate employability or entrepreneurship capacity in graduates. The questionnaire used was tested to determine if its design allowed an acceptable level of reliability to collect the

data that would be statistically processed and obtain the information to corroborate the research hypotheses.

The results demonstrate high reliability and validity with the Cronbach's Alpha and KMO statistics of the proposed methodology. The null hypothesis is not rejected, which means that the curriculum of the Bachelor of Administration are aligned according to the perceptions of employers, teachers and graduates. In conclusion, the proposed methodology can serve as a reference to carry out similar studies in different contexts with parametric and non-parametric tests to adapt the curriculum of university careers with their respective business environments, which are increasingly dynamic and demanding.

**Keywords:** generic competencies, higher education, employability, relevance.

## Resumo

O mundo do trabalho vem passando por mudanças devido à globalização e ao desenvolvimento tecnológico, o que faz com que os profissionais precisem estar interligados e interdependentes. Soma-se a esta situação a pandemia covid-19, que exigiu o fortalecimento das habilidades no uso de plataformas virtuais e digitais para trabalho não presencial ou remoto. Portanto, o objetivo desta pesquisa foi propor uma metodologia para avaliar a relevância do plano de estudos da carreira de Administração e a congruência das competências que os graduados adquirem no que diz respeito às percepções dos grupos de interesse na Região. El Salvador oriental.

Esta é uma investigação sobre a episteme positivista da ciência, com ênfase no paradigma quantitativo em que participaram graduados entre 2010-2015, professores e empresários, aos quais foi aplicado um questionário adaptado do Projeto Tuning. América Latina para determinar a importância atribuída às competências genéricas para gerar empregabilidade ou capacidade empreendedora nos egressos nas condições do ambiente de trabalho. O questionário aplicado foi submetido a testes para determinar se seu desenho permitia um nível aceitável de confiabilidade para a coleta dos dados que seriam processados estatisticamente e a obtenção das informações que corroborassem as hipóteses de pesquisa. Os resultados demonstram alta confiabilidade e validade com as estatísticas alfa de Cronbach e KMO da metodologia proposta. A hipótese nula do teste Kruskal-Wallis não é rejeitada, o que significa que os planos de estudos do Bacharelado em Administração estão alinhados de acordo com as percepções de empregadores, professores e graduados. Em conclusão, a

metodologia proposta pode servir de referência para a realização de estudos semelhantes em diferentes contextos da região com testes paramétricos e não paramétricos para adaptar os planos de estudos de carreiras universitárias aos respectivos ambientes de negócios, cada vez mais dinâmicos e demandantes.

**Palavras-chave:** competências genéricas, ensino superior, empregabilidade, relevância.

**Fecha Recepción:** Abril 2020

**Fecha Aceptación:** Enero 2021

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## Introduction

The world of work has been undergoing great changes due to globalization and technological development, so that every day it is necessary to be interconnected, which creates challenges and opportunities for higher education institutions (Organization for Economic Cooperation and Development [ OECD], 2017). To this situation has been added the confrontation with the covid-19 pandemic and the need to train skills in the use of virtual platforms for professional work in the remote mode.

Technological innovation and other changes in the knowledge society have caused many manual performance positions to be lost daily due to the new competencies required, such as the knowledge and application of artificial intelligence, the automation of processes, the use of virtual platforms, among others. At the same time, new jobs and roles are created, from which it follows that today's workers need flexibility, well-founded skills and lifelong learning to ensure and increase their employability or entrepreneurial capacity. These external forces are shaping the context in which academic institutions operate, which means that these phenomena affect the institutions' strategy, their study programs and even their own financing. In addition to the challenges related to increasing competitiveness, opportunities are generated in international cooperation, in online training that allow new non-face-to-face modalities of student mobility (Balan, 2017).

Universities witnessed a turn of the century that generated a series of transformations in higher education approaches, including the expansion of higher education to all sectors of the population, a condition that Kearney (2009) conceptualizes as a universal education , beyond an education for the elites, as well as the transnational opening of knowledge as an essential resource of competitive advantage in a global, interconnected and networked economy and society.

For many, this is not simply a time of transformation, but the birth of a new era (Santana, 2013); in the words of Michavila (2011), “the end of one era and the birth of another” (p. 18). An era of knowledge, whose management and organization is the responsibility of society as a whole, but everything related to the university as the main institution responsible for the advancement of professional capital acquires an essential role (Hargreaves and Fullan, 2014), increased from declare the pandemic of covid-19 in early 2020 with the change towards the so-called new normal in the anticipated post-pandemic scenarios.

Even when there is evidence of improvements in higher education coverage in El Salvador, problems related to quality and relevance persist, a situation that has been addressed by various authors, including the United States Agency for International Development [USAID / El Salvador], 2012), who in his report El Salvador: evaluation of higher education and recommendations, states:

During the last decades, El Salvador has taken important steps to increase the number of highly qualified workers by increasing the national enrollment in higher education.

However, the Salvadoran higher education system still faces many challenges. Graduation rates are low, higher education institutions (HEIs) face multiple problems in providing a quality education, and inequalities among students are wide. Furthermore, there is a significant incongruity between academic offerings and the demands of the labor market. The challenge is to provide relevant education, research opportunities, and job prospects for talented Salvadorans in order to ensure a sufficient supply of workers with high-quality academic skills to improve the national economy. The challenge is to provide relevant education, research opportunities, and job prospects for talented Salvadorans in order to ensure a sufficient supply of workers with high-quality academic skills to improve the national economy. (p. 1).

Another report determined that "the product of higher education is not responding to the needs of the Salvadoran labor market" (Fundación para la Educación Integral Salvadoreña [Fedisal], 2013, p. 11), a situation that is aggravated because until recently the Education had value to the extent that it offered solid and lasting knowledge (Bauman, 2007), but in these times the saturation and complexity of accumulated knowledge is difficult to transmit in the form of initial education (Alonso, Fernández and Nyssen, 2009), for what the knowledge

generated in the university will have to be a social and economic good that must be updated to be able to face the changes that are generated from an unstable and liquid perspective - as Bauman (2007) would say - and global (Haug and Villalta , 2011).

Several authors state the importance of carrying out a reflection exercise on the role of universities, among which Mundy (2005) and Rengifo-Millan (2015) stand out. All of them indicate the need to build an educational model adapted to the challenges of society today, from the social, economic, political and cultural point of view in continuous development, a condition that has been addressed in some of the few previous investigations , among which the study carried out by USAID / El Salvador (2012) stands out, in which it is emphasized:

Universities do not usually analyze the behavior of labor markets by linking them to the careers they offer, in such a way that their career offerings are defined on the basis of student demand, and not in terms of the needs of the labor market (p. 52).

This appreciation is not only on the part of the employers, but, as Alonso et al. (2009) - is shared by students and graduates, who resent excessive bureaucracy, obsolete academic programs and distanced from the performance of real work.

Continuous training is, therefore, a strategic and key factor in the development of the competencies of its workers to achieve the proposed objectives, and having training by competencies does not mean having a degree (Mourshed, Patel and Suder, 2014).

The recent concept of professionalism of the new associated profiles, based not so much on knowledge as on the ability to adapt them to the needs and requirements of their work environment. The challenge is great for training institutions, taking into account that there are difficulties to keep up with productive systems when they change at such a rapid rate.

It can be seen that the role of universities to comply with this undertaking is being examined by various organizations, especially to study the training mismatch by the International Labor Organization (ILO, 2015), in order to achieve compatibility between university education and the needs of the world of work, which reached the United Nations Summit in 2015, whose 2030 Agenda for Sustainable Development includes among its goals increasing the number of young people and adults who have the necessary skills, in particular technicians and professionals to access employment, decent work and entrepreneurship.

Thus, training must be oriented, fundamentally, to respond efficiently and effectively to the real, economic and social demands of companies and to design a training model that contains both generic and specific competencies aligned between the university-company binomial, that improve the employability and entrepreneurial capacity of their graduates, understanding employability under a broad concept, which is not only related to favoring the graduate's entry into the labor market, but also with the possibilities of professional development within and outside of the organization boundaries (Rodríguez Espinar, Prades, Bernáldez and Sánchez Castiñeira, 2010).

In this context, diagnosing the relevance of university degree curricula with respect to the needs of the world of work is a first step to implement continuous improvement actions that affect relevant higher education. However, this issue that seems so important—that is, its relevance—is not considered very much in the few evaluation models for study programs that exist in El Salvador, as they are models aimed at evaluating whether the results obtained correspond to the mission and planted objectives; In other words, the effectiveness of the program is evaluated, although what is wanted is to find out if the proposed objectives satisfy the real needs and interests of the beneficiaries and interested parties. In short, assess the relevance of the program. Although USAID (2012) agrees with what was stated by Fedisal (2013) in that the product of Salvadoran higher education is not responding to the needs of the world of work, the truth is that to date none of the aforementioned studies specify which ones are the careers that present training deficits, much less in what areas of training or type of competencies there is a possible gap, with the aggravating factor that most of them follow a qualitative approach and, therefore, subjective in terms of their approach to reality. In sum, no studies were identified related to the evaluation of the perceptions of the related parties of higher education programs, with quantitative methods and the application of inferential statistics that, using parametric or non-parametric methods, allow evaluating the relevance of the plans. formative.

From the previous considerations, the main approach followed in this research revolved around the objective of proposing a methodology that allows determining the relevance of study programs in the formation of competencies aligned to the real needs of society, expressed in through its requirements to the companies producing goods and services, to be applied to the case of the Business Administration career in the Eastern Region of El Salvador.

This is an investigation into the positivist episteme of science, with an emphasis on the quantitative paradigm in which professionals graduated from the Bachelor of Business Administration between the years 2010-2015, professors from the universities of the Eastern Region participated from El Salvador, as well as businessmen, using a questionnaire adapted from the one originally used by the Tuning América Latina project, where relevant information is collected according to the research questions, structured in such a way as to address the skills training system, the domain and importance of these to generate employability or entrepreneurial capacity in graduates, in the conditions of the work environment.

The research joined the idea of various authors who indicate that in order to achieve harmony between the university and the world of work, it is necessary to develop competencies as integrating elements of a circle capable of promoting long-lasting and sustainable economic growth, the quality of employment and the productivity. In this sense, the ILO (2011) affirms that better training “feeds innovation, investment, economic diversification and competitiveness, in addition to social and occupational mobility, and therefore, the creation of more jobs than at the same time be more productive and rewarding” (p. 2).

It should be noted that there are many international investigations that study the conditions for the employment of graduates through their employability conditions (Sánchez-Elvira, López-González and Fernández-Sánchez, 2010), all demonstrating the importance of employability in the job placement process and expectations of self-efficacy in the processes of seeking job opportunities for university students when it comes to finding employment. However, they only conform to the paradigms imposed by the educational model of the industrial era (which is in crisis), and not to the current era of information, knowledge and influence based on leadership to form competencies in capacity of entrepreneurship.

Derived from the above, the research questions are aimed at answering the following: are there differences between the perceptions of entrepreneurs, teachers and graduates of the Business Administration career at universities in the Eastern Region of El Salvador in relation to the importance of the generic competences formed? This would mean, in the event of significant differences, that the study plans should be updated; On the other hand, if there were no significant differences, it could be said that the study plans of the Business Administration career are aligned with the perceptions of the other stakeholders.



However, in both cases, the previous question also allows us to identify which are the generic competences that are best valued for their importance, according to the perception of the three main interest groups in the university education of the Business Administration career in the universities of the Eastern Region of El Salvador, as well as which are those that are most required in companies in the East of El Salvador and, therefore, those that can generate more employability and entrepreneurship capacity for graduates. This can constitute a permanent update guide for the Business Administration program of the Eastern Region of El Salvador.

Furthermore, the proposed methodology can serve as a reference to evaluate and adapt the study plans of the university courses of other institutions of higher education with their respective business or industrial environments, which are increasingly dynamic and demanding. The robustness of the proposed methodology is based on reliability and validity tests, using Cronbach's alpha and KMO statistics and the flexibility in which, in the event that the assumptions of normality and homoscedasticity are met, the test can be applied parametric variance of one way Anova, and in the case that one of these assumptions is not fulfilled, the non-parametric Kruskal-Wallis test.

## **Method**

### **Design of the investigation**

The research was carried out under the positivist episteme with a design in the cross-sectional, descriptive and non-experimental quantitative paradigm. It is cross-sectional because the data was collected at a single moment, in each unit of analysis; descriptive because - according to Hernández Pina, Maquilón Sánchez and Cuesta Sáenz de Tejada (2006) - this type of design describes an aspect of reality, and at the same time independently measures the concepts and variables to which the study refers.

Regarding its scope, this is descriptive. Hernández, Fernández and Baptista (2010) also state that “descriptive studies seek to specify the properties, characteristics and profiles of people, groups, communities, processes, objects or any other phenomenon that is subjected to an analysis” (p. 80 ). Silva (2008) considers that descriptive research focuses on characterizing an object of study or a specific situation: it indicates its characteristics and properties, interprets what it is and describes the situation of things in the present.

The research is non-experimental because it was not intended to intentionally manipulate the study variables, which contrasts with what is stated by Hernández, Fernández and Baptista (2007), who affirm that from the non-experimental design “no situation is built, but rather they observe already existing situations, not intentionally provoked in the research being carried out ”(p. 205), as in this research, where the perceptions of teachers, graduates and employers about university training and competencies in their current moment are explored.

### Sample

The elements of the population under study were professionals who graduated between the years 2011 to 2015 from any of the five universities that offer a degree in the five departments that make up the region (as shown in table 1), employed in any sector or subsector of economic activity; Likewise, the business community was selected from any economic sector, for which the sample size was determined using the Economic Census of the General Directorate of Statistics and Censuses of El Salvador, year 2012; while the professors of the career, from the statistical data of the Ministry of Education.

**Tabla 1.** Graduados de la carrera de licenciatura en Administración de Empresas por universidad en la Región Oriental de El Salvador

<i>Universidad</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>Total</i>	<i>%</i>
Universidad de El Salvador-FMO	45	47	58	54	54	258	23.85
Universidad de Oriente	70	82	75	79	65	371	34.29
Universidad Gerardo Barrios	64	71	25	61	104	325	30.04
Universidad Doctor Andrés Bello	21	10	37	10	3	81	7.48
Universidad Modular Abierta	6	19	6	11	5	47	4.34
Total	206	229	201	215	231	1082	100

Fuente: Elaboración propia con base en datos del Ministerio de Educación (2016)

The proposed methodology made it possible to determine the relationship between the perception of the importance of the competencies declared in the programs of the Business Administration career by the interest groups to satisfy the requirements of

employability or the entrepreneurial capacity with respect to the relevance of said competences for insertion in the labor market or developing entrepreneurial projects in goods and services businesses. This methodology is applied through a quantitative instrument (survey) that allows to verify the following research hypotheses:

H1: There is a gap between the generic competencies of graduates of the Business Administration degree in the Eastern Region of El Salvador and those demanded by companies, so there are differences in the perception of the importance of these competencies by interest groups.

H0: There is no gap between the generic competencies of graduates of the Business Administration degree in the Eastern Region of El Salvador and those demanded by companies, so there are no differences in the perception of the importance of these competencies by part of the interest groups.

The information collected by the survey was coded in a database in the Ms Excel program and in the SPSS V. 25 statistical program for Windows, to perform descriptive analyzes in order to know the frequency distribution and position and dispersion statistics, such as the mean and the standard deviation in each of the items defined in this research. As the data did not present normality, the parametric test of one-way analysis of variance (Anova) was left aside, applying the non-parametric Kuskal-Wallis test, which compares the perceptions of the medians of the different interest groups regarding the relevance of the study program of the Bachelor of Business Administration.

### **Instrument**

The instrument used was a questionnaire derived from the Tuning Latin America project, which, once adapted to the research context and performed the reliability and validity tests, was applied to the study sample. Table 2 presents the detail of the sample by interest group.

**Tabla 2.** Detalle del cálculo de la muestra por sujetos de estudio

<i>Sujeto de estudio</i>	<i>Población</i>	<i>Muestra</i>	<i>Porcentaje</i>
Graduados	1082	301	27.82
Empleadores	26 103	379	1.45
Profesores	94	76	80.85
Total	22 279		

Fuente: Elaboración propia con base en datos del Ministerio de Educación (2016)

To determine the reliability of the instrument, the Cronbach's alpha statistic was calculated, which yielded the results shown in Table 3.

**Tabla 3.** Determinación de la fiabilidad del instrumento mediante el alfa de Cronbach

<i>Alfa de Cronbach</i>	<i>Alfa de Cronbach basada en elementos estandarizados</i>	<i>N de elementos</i>
0.965	0.966	54

Fuente: Elaboración propia

It was possible to determine that the statistical result of 0.966 is significant, so it is concluded that the research instrument is reliable, since it is above 0.7.

To analyze the validity of the instrument, the KMO test (Kaiser, Meyer and Olkin) was used, which relates the correlation coefficients observed between the variables. The closer the value obtained from the KMO test is to 1, it implies that the relationship between the variables is high. If  $KMO \geq 0.9$ , the test is very good; notable for  $KMO \geq 0.8$ ; median for  $KMO \geq 0.7$ ; low for  $KMO \geq 0.6$ , and very low for  $KMO < 0.5$ . The result of the KMO test of the present investigation is shown in table 4.

**Tabla 4.** Determinación de la validez del instrumento (prueba KMO)

<i>Medida Kaiser-Meyer-Olkin de adecuación de muestreo</i>	<i>N de elementos</i>
0.874	54

Fuente: Elaboración propia

The KMO test indicates a value of 0.874 which is close to 0.90, which is why it is concluded that the validity of the instrument is very good.

Once the reliability and validity of the instrument were determined, normality tests were carried out on the items to determine the most appropriate statistical procedure for hypothesis testing using the Kolmogórov-Smirnov test, which is a goodness-of-fit test that

serves to verify whether the scores obtained from the sample follow a normal distribution or not. In other words, it makes it possible to measure the degree of agreement between the distribution of a data set and a specific theoretical distribution. The test result is shown in Table 5.

**Tabla 5.** Prueba de Kolmogórov-Smirnov

<i>P Valor</i>	<i>N de elementos</i>
0.000	756

Fuente: Elaboración propia

Given that the p value is 0.000, less than the defined significance level of 0.05, it is shown that the data follow a normal distribution, for which the performance of non-parametric tests is justified for the contrast of research hypotheses, in this particular case, the Kruskal-Wallis test.

## Results

With the analysis of the results of the survey, the corresponding comparisons were established to find if there are significant differences between the interest groups involved in the study. The results found were organized according to each of the blocks of competencies raised in the questionnaires. Table 6 shows that 26 of the 27 competencies analyzed were rated with an average higher than 2.99, the minimum limit set in the research to determine whether these competencies are critical or important. Only one of the 27 is below this score, so it is considered complementary or not necessary.

**Tabla 6.** Importancia de las competencias en promedio para los tres grupos analizado

<i>Competencias</i>	<i>N</i>	<i>Mínimo</i>	<i>Máximo</i>	<i>Media</i>	<i>Desviación</i>
Compromiso con la calidad	756	2.0	4.0	3.656 2	0.48893
Compromiso ético	756	2.0	4.0	3.592 6	0.54498
Capacidad de trabajo en equipo	756	2.0	4.0	3.488 2	0.54302
Capacidad de motivar y conducir hacia metas comunes	756	2.0	4.0	3.459 3	0.58590
Habilidades interpersonales	756	2.0	4.0	3.421 3	0.57291
Habilidades en el uso de las tecnologías de información y de las comunicaciones	756	2.0	4.0	3.421 3	0.65026
Capacidad para tomar decisiones	756	2.0	4.0	3.419 9	0.53229
Capacidad de aprender y actualizarse permanentemente	756	2.0	4.0	3.413 2	0.59452
Capacidad de comunicación oral y escrita	756	2.0	4.0	3.400 3	0.64125
Capacidad para identificar, plantear y resolver problemas	756	2.0	4.0	3.364 8	0.55756
Conocimientos sobre el área de estudios y la profesión	756	2.0	4.0	3.320 2	0.56609
Capacidad para actuar en nuevas situaciones	756	2.0	4.0	3.305 8	0.56129
Capacidad de aplicar los conocimientos en la práctica	756	1.0	4.0	3.275 1	0.7180

Capacidad creativa	756	1.0	4.0	3.221 8	0.66003
Capacidad para organizar y planificar el tiempo	756	2.0	4.0	3.212 6	0.61685
Capacidad para formular y gestionar proyectos	756	1.0	4.0	3.199 5	0.67980
Capacidad de abstracción, análisis y síntesis	756	1.0	4.0	3.191 6	0.61734
Compromiso con la preservación del medio ambiente	756	1.0	4.0	3.185 0	0.85392
Habilidad para trabajar de forma autónoma	756	1.0	4.0	3.175 9	0.73974
Valoración y respeto por la diversidad y multiculturalidad	756	1.0	4.0	3.173 2	0.81472
Habilidad para buscar, procesar y analizar información procedente de fuentes diversas	756	1.0	4.0	3.153 5	0.64951
Compromiso con su medio sociocultural	756	1.0	4.0	3.132 5	0.78220
Responsabilidad social y compromiso ciudadano	756	1.0	4.0	3.108 9	0.69913
Capacidad crítica y autocrítica	756	2.0	4.0	3.108 9	0.72677
Habilidad para trabajar en contextos internacionales	756	1.0	4.0	3.085 3	0.78876
Capacidad de investigación	756	1.0	4.0	3.006 6	0.76776
Capacidad de comunicación en un segundo idioma	756	1.0	4.0	2.725 4	0.97441

Fuente: Elaboración propia

In order to verify the null hypothesis raised and taking into account that the distribution of the sample does not follow a normal distribution, the non-parametric Kruskal-Wallis test was performed and the results shown in Table 7 were obtained.

**Tabla 7.** Contraste de hipótesis mediante la prueba de Kruskal-Wallis

<i>H de Kruskal-Wallis</i>	<i>GI</i>	<i>Significancia asintótica</i>
1.659	2	0.436

Fuente: Elaboración propia

With a level of significance of 5% (0.05), it results in a statistic of the Kruskal-Wallis test = 1.659 and a degree of asymptotic significance of 0.436, higher than the significance level of 0.05. Therefore, the research hypothesis that states that there are significant differences between the opinion of employers with respect to that of graduates and that of teachers is rejected. In other words, it is concluded that there is no difference between the opinions of the three groups because a p-value = 0.436 shows that H1 is rejected, so the null hypothesis of equality is not rejected.

The detail of the average importance that each group gives to each competence is shown in table 8.

**Tabla 8.** Importancia promedio de cada competencia según la percepción de cada grupo de interés

<i>Competencias</i>	<i>Graduados</i>	<i>Empleadores</i>	<i>Profesores</i>
Compromiso con la calidad	3.6047	3.7150	3.5921
Compromiso ético	3.6367	3.5515	3.6184
Capacidad de trabajo en equipo	3.5880	3.4301	3.3684
Capacidad de motivar y conducir hacia metas comunes	3.4385	3.4776	3.4868
Habilidades interpersonales	3.4053	3.4485	3.3816
Habilidades en el uso de las tecnologías de información y de las comunicaciones	3.2890	3.5752	3.1842
Capacidad para tomar decisiones	3.3488	3.4485	3.5658
Capacidad de aprender y actualizarse permanentemente	3.2867	3.5145	3.4133



Capacidad de comunicación oral y escrita	3.2957	3.4881	3.3816
Capacidad para identificar, plantear y resolver problemas	3.2824	3.4116	3.4868
Conocimientos sobre el área de estudios y la profesión	3.1827	3.4063	3.4342
Capacidad para actuar en nuevas situaciones	3.2126	3.3668	3.4211
Capacidad de aplicar los conocimientos en la práctica	3.1993	3.3061	3.4211
Capacidad creativa	3.2027	3.2322	3.2632
Capacidad para organizar y planificar el tiempo	3.3023	3.1266	3.3289
Capacidad para formular y gestionar proyectos	3.0897	3.2902	3.2237
Capacidad de abstracción, análisis y síntesis	3.2193	3.1003	3.5526
Compromiso con la preservación del medio ambiente	3.3156	3.4776	3.4868
Habilidad para trabajar de forma autónoma	3.0432	3.2559	3.3684
Valoración y respeto por la diversidad y multiculturalidad	3.1894	3.1451	3.2105
Habilidad para buscar, procesar y analizar información procedente de fuentes diversas	3.1429	3.1319	3.2895
Compromiso con su medio sociocultural	3.1761	3.0712	3.1974
Responsabilidad social y compromiso ciudadano	3.3090	2.9499	3.0921
Capacidad crítica y autocrítica	3.1229	3.0686	3.2368
Habilidad para trabajar en contextos internacionales	2.9402	3.2375	2.9342
Capacidad de investigación	3.0598	2.9578	3.0658
Capacidad de comunicación en un segundo idioma	2.5967	2.7968	2.9342

Fuente: Elaboración propia

Of the 27 competences, only the ability to communicate in a second language is considered as not necessary or complementary by the three study groups. However, other

competencies considered as not necessary are identified independently by each of the groups analyzed. Employers, for example, believe that Social Responsibility and citizen engagement and Investigation capacity are not necessary; graduates and professors of the career, for their part, think that in addition to the ability to communicate in a second language, the ability to work in international contexts is not a necessary competence.

Table 9 shows the most valued competencies and those that represent the least interest for employers, according to the average level of importance shown.

**Tabla 9.** Competencias más valoradas por los empresarios en promedio

<i>Competencias</i>	<i>Promedio de importancia</i>	<i>Lugar</i>
Compromiso con la calidad	3.7150	1.º
Habilidades en el uso de las tecnologías de información y de las comunicaciones	3.5752	2.º
Compromiso ético	3.5515	3.º
Capacidad de aprender y actualizarse permanentemente	3.5145	4.º
Capacidad de comunicación oral y escrita	3.4881	5.º
Capacidad de motivar y conducir hacia metas comunes	3.4776	6.º
Habilidades interpersonales	3.4485	7.º
Capacidad para tomar decisiones	3.4485	8.º
Capacidad de trabajo en equipo	3.4301	9.º
Capacidad para identificar, plantear y resolver problemas	3.4116	10.º
Conocimientos sobre el área de estudios y la profesión	3.4063	11.º
Capacidad para actuar en nuevas situaciones	3.3668	12.º
Capacidad de aplicar los conocimientos en la práctica	3.3061	13.º
Capacidad para formular y gestionar proyectos	3.2902	14.º
Habilidad para trabajar en forma autónoma	3.2559	15.º
Habilidad para trabajar en contextos internacionales	3.2375	16.º
Capacidad creativa	3.2322	17.º

Valoración y respeto por la diversidad y multiculturalidad	3.1451	18.º
Habilidad para buscar, procesar y analizar información procedente de fuentes diversas	3.1319	19.º
Capacidad para organizar y planificar en el tiempo	3.1266	20.º
Capacidad de abstracción, análisis y síntesis	3.1003	21.º
Compromiso con su medio sociocultural	3.0712	22.º
Capacidad crítica y autocrítica	3.0686	23.º
Compromiso con la preservación del medio ambiente	3.0633	24.º
Capacidad de investigación	2.9578	25.º
Responsabilidad social y compromiso ciudadano	2.9499	26.º
Capacidad de comunicación en un segundo idioma	2.7968	27.º

Fuente: Elaboración propia

The competences most valued by employers are related to quality aspects, use of information and communication technologies, constant updating, management of communication skills, ethics, ability to solve problems, interpersonal skills, continuous training and teamwork.

On the contrary, the least valued competences are command of a second language, social responsibility, commitment to the environment and critical and self-critical capacity.

## Discussion

Addressing the relevance of educational programs in training the skills that the business sector needs is essential as a diagnostic measure to identify areas of opportunity that must be addressed with adequate training strategies, and thus eventually reduce rates of training deficits that trigger low employability, inefficiency and unproductivity.

From the statistical analysis of the survey results, it was found that 26 of the 27 generic competencies considered for the career of Business Administration by the Tuning Project for Latin America are considered important for stakeholders, which means that designing programs and Didactic strategies to form these competences should be a priority for the universities of the Eastern Region of El Salvador.

The competence that is not considered with the same level of importance is that of Communication ability in a second language, which - according to the authors' criteria - represents a cultural problem due to the belief that graduates are only trained to be employed and solve professional problems at the local level. This is contradictory to Tuning's proposal, since it considers it as a requirement of globalization to guarantee mobility and the capacity not only to be employed locally, but also to undertake on an international scale.

On the other hand, it is urgent to attend to the effective training of the competencies that have turned out to be the most demanded by companies in the Eastern zone, areas of opportunity expressed by the entrepreneurs of the different companies of the five departments that make up the region, since the order of priority or importance that they give to the competences does not imply that they have the same score in their level of development.

In general, these findings show the need to address the challenges posed by competency-based higher education in El Salvador and that these are aligned with the needs of the world of work, which, without neglecting the nuances that are presented, coincide with the results found in similar studies in other Latin American countries.

In addition to the above, in the case of a higher training program, what is described here adjusts to the results of Tuning (2007), specifically in that the competencies raised are relevant for the graduate profile of a graduate in Administration of Companies according to the perception of the interested parties, although it does not coincide with the deficiencies detected by USAID (2012) regarding the alignment of the competencies formed with the needs of the companies, since this research focuses on the generic competencies proposed, while the USAID report (2012) mainly focuses on specific competencies to change the perception of stakeholders.

Regarding the strength of the present study, it is possible to mention the possibility of applying the proposed methodology to diagnose the relevance of higher level academic programs with a quantitative method, comparing the perception of the different interested parties, which may serve as a reference or point starting point to apply it in other careers, institutions of higher education or other territories. For this, logically, the pertinent adjustments must be made according to the specific characteristics of the environment to determine the improvement actions that should be considered and undertaken in the university-company binomial. In this way, the employability of graduates can be facilitated, as well as business productivity and efficiency.

Finally, and despite the foregoing, it must be recognized that there are limitations in the results because they cannot be generalized to all the career competencies, since the study refers exclusively to the generic ones. On the other hand, neither was it investigated about the ways in which work is done in the classroom with respect to teaching strategies that favor the development of skills or the on-site performance of graduates.

## Conclusions

The proposed methodology allows determining the relationship between the perception of the importance of the competencies declared in the programs of the Business Administration career by the interest groups to satisfy the requirements of employability or the entrepreneurial capacity with respect to the relevance of said competences for insertion in the labor market or developing entrepreneurial projects in goods and services businesses. Therefore, this methodology can serve as a reference to carry out similar studies in different contexts of the region with parametric and non-parametric tests to adapt the study plans of university careers with their respective business environments, which are increasingly dynamic and demanding .

It is also concluded that the methodology proposed by the Latin America Tuning Project has an exploratory, purposeful and non-binding character, like other studies (USAID, 2012, El Salvador: evaluation of higher education), although the research items can be used to the performance of robust statistical tests as in this research, demonstrating that the parametric test of one-way analysis of variance (Anova) or the non-parametric Kuskal-Wallis test can be performed depending on the fulfillment of the assumptions of normality and homoscedasticity.

With a significance level of 5% (0.05), the Kruskal Wallis test statistic of 1.659 and with a p value of 0.436 higher than the significance level of 0.05, the research hypothesis H1 is rejected (there is a gap between the competences of the graduates of the Business Administration degree in the Eastern Region of El Salvador and those demanded by the companies).

In other words, it is concluded that there is no difference between the opinions of the three groups because a p value = 0.436 shows that the null hypothesis of equality of H0 is not rejected (there is no gap between the generic competences of the graduates of the

Bachelor of Business Administration in the Eastern Region of El Salvador and those demanded by companies).

In sum, the research allowed to establish those competencies in which entrepreneurs assign the greatest importance to graduates of the Business Administration career of the Eastern Region of El Salvador. In fact, in order of preference, the first six competencies are Commitment to quality, Skills in the use of information and communication technologies, Ethical commitment, Ability to learn and constantly update, Ability to communicate orally and in writing, and Ability to motivate and lead towards common goals.

On the contrary, the six least important generic competences for businessmen ordered based on their qualification are Communication ability in a second language, Social responsibility and citizen commitment, Research capacity, Commitment to the preservation of the environment, Critical and self-critical capacity and Commitment to their sociocultural environment.

### **Prospective**

After having exposed the path that led to the elaboration and validation of the methodology to determine the relevance of the study program, apply the methodology and evaluate the relevance of the Business Administration career and determine the generic competencies most required by companies, it is expected that the work contributes as much as possible to raise the foundations and bases that allow other investigations and researchers to continue with the continuous improvement of arguments and delve into this relevant issue for the national and international business context. Likewise, it is necessary to develop investigative actions that dynamically update the profile of the degree professional approached in this research. In addition, continue evaluating the relevance in other careers to respond to the existing need of the problem indicated in articles and studies on the quality of training in our country, as well as in the strengthening of the training of competences in universities so that they are related to the reality and functions needed in the real sector, without neglecting the ethical and social commitment that complete an integral education of being.

As an empowering element, a parallel instrument could be designed to complement the techniques used for data collection that could be made more dynamic as a self-assessment instrument for both teachers and students, which could also measure the level of

apprehension and development of necessary skills to be a competent professional in the area of business administration.

Finally, some lines of research that could be explored are mentioned below:

- Analysis of new technologies for the training of competences at the university level.
- Evaluation of priority competencies within the framework of the new post-COVID-19 normality.
- Evolution of science and technology and its application in the world of business administration.
- Study on the relevance of specific competences for business administrators.
- Application of statistics to generate predictive models of employability and productivity.
- Contextual factors that condition the formation of competencies at the university level in El Salvador.

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