Research Article

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Preparation of Higher Education Students in Ecuador: An Analysis Based on the Knowledge Economy

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Abstract

The knowledge economy has emerged as a key paradigm in global socioeconomic development, highlighting the importance of higher education in the formation of human capital capable of generating, applying and disseminating innovative knowledge. This study aims to evaluate the preparation of higher education students in Ecuador, considering critical variables such as soft skills, perception of the knowledge economy, university-business linkage and internationalization, and their impact on academic training. The methodology employed was quantitative, using a multiple linear regression model to analyze the relationship between the independent variables and the academic formation of a sample of 205 students from two Ecuadorian universities. Advanced statistical techniques were applied to evaluate the significance and impact of each variable. The results indicate that soft skills ($r = 0.713$, $p < 0.01$), perception of the knowledge economy ($r = 0.602$, $p < 0.01$) and internationalization ($r = 0.594$, $p < 0.01$) have a significant and positive impact on academic training. However, university-business linkage showed a lower and non-significant correlation ($r = 0.407$, $p < 0.01$). In conclusion, academic training in Ecuador benefits significantly from the development of soft skills, a positive perception of the knowledge economy and internationalization. However, the lack of significant impact of university-business linkages suggests the need for future studies to explore barriers and improve these collaborations. These findings underscore the importance of educational policies that integrate these factors to improve the preparation of students in a global knowledge economy.

Keywords: *Knowledge economy, higher education, soft skills, internationalization, university-industry linkages*

1. Introduction

The knowledge economy has emerged as a key paradigm in shaping global socio-economic development, highlighting the importance of higher education in the formation of human capital capable of generating, applying and disseminating innovative knowledge. In this context, the preparation of higher education students in Ecuador becomes fundamental to ensure the country's competitiveness and sustainability in a globalized market (Belenkuyu & Karadag, 2024; Chalen et al., 2021). This article deals with an analysis of the preparation of Ecuadorian students, considering several critical variables that influence their academic and professional performance, as well as their ability to contribute to the knowledge economy (Alattiq, 2023).

One of the main variables studied is the quality of education provided by higher education institutions (Alattiq, 2023). The quality of education is measured by indicators such as institutional accreditation, educational infrastructure, academic level of the faculty and availability of technological and bibliographic resources (Singh & Blessinger, 2024; Tung et al., 2023). These factors are of paramount importance in the development of competencies and skills in students, as they are essential for their effective entry into the labour market and for generating innovations that drive economic and social development (Rottleb & Kleibert, 2022; Seidl, 2023).

Equity in access to higher education is vital to ensuring that all sectors of society can contribute to the development of the knowledge economy, avoiding exclusion and promoting inclusive participation in the educational process and the labour market (Rottleb, 2023a; Scott & Guan, 2023; Zaidan et al., 2024). Similarly, the linkage between higher education and the productive sector is also a variable of great importance (Rehman et al., 2024). This interconnection is evidenced in the collaboration between universities and businesses, the provision of internship programmes, and the alignment of academic curricula with labour market needs. The synergy between these actors is crucial for the development of professionals who not only possess theoretical knowledge but also practical skills and a profound understanding of the requirements of the productive sector (Scott & Guan, 2023; Steiner-Khamsi et al., 2024).

Ecuador is undergoing a transition towards a knowledge-based economy, prioritising intellectual capital over the exploitation of primary resources. This transformation is evidenced by the 32.9% increase in the number of researchers and scholarship holders between 2009 and 2014, according to the National Survey of Scientific, Technological and Innovation Activities. In addition, spending on science, technology and innovation activities reached 1,923.3 (INEC, 2015) million dollars in 2014, representing an increase of 88.9% compared to 2009 (INEC, 2015). To consolidate a knowledge-based economy, it is crucial to maintain sustained investment in R&D, foster advanced human capital formation and promote collaboration between the public sector, the private sector and academia. The National e-Government Plan 2018-2021, led by MINTEL, sets specific objectives to increase knowledge generation and develop linkages for research, innovation and technology transfer.

Theories of university-industry collaboration seek to facilitate knowledge transfer through interaction between the education system and industry (Bekkers & Bodas Freitas, 2008). This collaboration has evolved to the point where universities have become hubs for knowledge creation and transfer between universities, industry and government (Paoloni et al., 2019; Shi et al., 2020). In practice, academic knowledge has become essential for sectors influenced by natural factors (Vesperi et al., 2021).

In this context, it is fundamental to analyse various constructs or dimensions that influence the preparation or training of higher education students in Ecuador, such as advanced academic training Mizyed & Eccles (2023), encompassing quality of teaching and educational infrastructure; soft skills, essential for employability in a competitive labour market (Andrews & Higson, 2008; Mizyed & Eccles, 2023; Toimbek, 2023); the perception of the knowledge economy, which affects the implementation of innovative strategies (Rottleb & Kleibert, 2022; Seidl, 2023; Siddiqui & Afzal, 2022; Tung et al., 2023); the link between universities, business and the knowledge economy, which

facilitates the transfer of knowledge and technology (Belenkuyu & Karadag, 2024; Dang et al., 2024a; Mizyed & Eccles, 2023); nd the internationalisation of the knowledge economy, which positions educational institutions on the global stage (Cheung, 2022; Nagari et al., 2023). These sub-themes are central to research to understand how higher education can effectively prepare students to contribute to socio-economic development in a globalised environment.

1.1 Higher academic training

The academic training of higher education students in Ecuador is at the core of preparing them for a knowledge-based economy. This dimension encompasses several critical aspects that determine students' ability to adapt and thrive in a dynamic economic environment. First, the quality of teaching and educational programmes is fundamental (Naumova & Sokolov, 2021). Higher education institutions must ensure that their academic programmes are aligned with current labour market needs and global economic development trends. This includes the constant updating of curricula and the incorporation of advanced technologies and innovative pedagogical methodologies that foster critical thinking and problem-solving skills in students.

In addition, educational infrastructure plays a key role in academic training. The availability of technological resources, such as state-of-the-art laboratories, digital libraries and online learning platforms, is essential to provide students with the necessary tools to develop their competences. According to the study by Nagari et al. (2023), the right infrastructure not only facilitates access to information, but also significantly enhances the learning experience, enabling students to apply their knowledge in a practical and efficient way (Dang et al., 2024).

Preparedness for economic challenges and innovativeness are key components of academic training in the context of a knowledge economy. Students must be equipped not only with theoretical knowledge, but also with practical skills and an entrepreneurial mindset. This includes the ability to identify opportunities, develop new ideas and carry out projects that contribute to economic and social growth (Yeo et al., 2023)Academic training must therefore integrate the development of soft skills, such as creativity, effective communication and teamwork, which are indispensable in a competitive and constantly evolving labour market. By fostering a culture of innovation and entrepreneurship, higher education institutions in Ecuador can better prepare their students to face the challenges of the future and contribute to the sustainable development of the country (Qahl & Sohaib, 2023).

1.2 Soft skills

Soft skills, which include competences such as effective communication, teamwork and problem-solving skills, are essential for graduate employability in an increasingly competitive and globalised labour market. A study on graduate employability in Europe underlines that interpersonal and communication skills are as crucial as technical knowledge in the modern business environment (Andrews & Higson, 2008). These skills enable graduates not only to adapt quickly to different roles and responsibilities, but also to collaborate effectively in multidisciplinary teams and handle complex situations more effectively.

The importance of soft skills in the knowledge economy is also reflected in the ability of graduates to innovate and lead in their respective fields. According to Naumova & Sokolov (2021)The knowledge-based economy requires individuals who possess not only technical skills (hard skills) but also the ability to work in creative and innovative ways. This perspective highlights the need for higher education institutions to focus not only on imparting theoretical knowledge, but also on developing an educational environment that fosters creativity, collaboration and adaptability. The integration of programmes that promote the development of soft skills, such as extracurricular activities, collaborative research projects and leadership opportunities, is essential to prepare students for the challenges of the 21st century.

In addition, soft skills training has a direct impact on graduates' ability to contribute to sustainable development and social welfare. Competences in communication and teamwork are vital for the effective management of projects that seek to solve social and environmental problems. Research on graduate employability highlights that the ability to work in teams and communicate effectively with different audiences is essential for the successful implementation of sustainable initiatives (Frunzaru et al., 2018; Naumova & Sokolov, 2021). In this sense, universities must play an active role in creating educational programs that not only focus on academic excellence, but also on the holistic development of their students, preparing a new generation of leaders capable of driving positive changes in society and the economy.

1.3 Knowledge economy and its perception

The perception of the knowledge economy in academia and business is a determining factor in the implementation and success of strategies based on innovation and technological development. According to Joo et al. (2023) organizational trust and empowering leadership are important for fostering an environment of psychological safety, which in turn reduces group conflict and promotes a collaborative environment conducive to innovation. In this sense, the perception of a safe and supportive environment within organizations is essential for employees to feel comfortable sharing ideas and taking risks-key elements in a knowledge economy (Dang et al., 2024).

University-industry engagement also plays a vital role in the knowledge economy, particularly in emerging countries such as Vietnam. According to a study of university-industry collaborations, the effectiveness of these partnerships depends largely on the perception that both parties have of the value and utility of the collaboration. Academic institutions must demonstrate their ability to contribute significantly to economic development through applied research and technology transfer. This positive perception encourages greater investment in research and development and strengthens the relationship between academia and business (Mullet et al., 2016).

Finally, the perception of science and its role in the business sector is another critical component. Companies that value and trust scientific contributions are better positioned to take advantage of technological advances and remain competitive in a global marketplace. Thus, the perception of the knowledge economy not only influences innovation policies and strategies, but also directly affects a country's ability to develop a sustainable and competitive knowledge-based economy (López-Navarro et al., 2022; Vorontsovskiy, 2020).

1.4 Links between the university, business and the knowledge economy

The link between universities, business and the knowledge economy is a crucial component for economic and social development in any country. The link between universities, business and the knowledge economy is fundamental for socio-economic development and innovation in modern societies. This interrelationship is underpinned by the triple helix model, which describes the dynamic and evolving interactions between academia, industry and government. Similarly, the transfer of knowledge and technology from universities to the productive sector can drive innovation, improve competitiveness and foster sustainable development (Coşkun et al., 2022).

In a number of countries, as mentioned by Lotfi et al. (2018) including in developing countries such as Nigeria, university-business collaboration has proven to be a key driver of knowledge-based economic growth. Universities, working hand in hand with industries, can develop curricula and research projects that not only address current market challenges, but also anticipate future trends and needs.

In addition, strategic partnerships between universities and companies allow for the creation of training programmes that include practical components, such as internships and collaborative projects. This is vital to improve the employability of graduates and to ensure that students acquire relevant and applicable skills in the real world. However, the lack of coordination and standardisation

in education remains an obstacle, underlining the need for specific skills frameworks and training programmes that address existing gaps. The implementation of international best practices and specialisation in key sectors are essential steps to build a strong and competitive knowledge economy (Brodny & Tutak, 2022; Lotfi et al., 2018).

1.5 Internationalization of the knowledge economy

The internationalization of the knowledge-based economy has become a key aspect for the development and global positioning of educational institutions and national economies (Khussainova et al., 2024). In this context, universities play a key role in acting as knowledge hubs that facilitate technology transfer and innovation at the global level. Global university rankings have become institutionalized as a key mechanism for measuring and comparing the quality and impact of higher education institutions in an increasingly marketized environment (Al-Housani et al., 2024).

The evolution of global university rankings has been marked by an increasing focus on internationalisation as a driver of globalisation in higher education (Khussainova et al., 2024). The creation of global rankings has become a powerful indicator of market values applied to the university sector, reflecting a trend towards quantifying educational quality to meet stakeholder demands for greater accountability, transparency and efficiency (Al-Qahtani & Shirazi, 2023). On the other hand, a comparative analysis of higher education internationalisation policies in Singapore and Japan highlights how both countries use internationalisation strategies not only to build bridges between nations and regions, but also to remain competitive in the global economy of the 21st century (Sanders, 2019).

Despite the contextual differences of a globalized world and its unique approaches to internationalization, countries must take internationalization as a central component of their educational and economic policies, underlining the importance of adapting their local systems to the demands of a globalized economy (Sanders, 2019). However, they need to adjust their local systems to respond to a globalized knowledge economy, highlighting the importance of training graduates capable of operating internationally (Belenkuyu & Karadag, 2023).

Thus, the general objective of the research is to evaluate the preparation of higher education students in Ecuador in the context of the knowledge economy, through constructs such as: educational quality, soft skills, links with the productive sector and the internationalization of knowledge, in order to determine their capacity to contribute effectively to the socio-economic development of the country in a globalized environment.

2. Methodology

This study uses a quantitative approach, which focuses on the collection and analysis of numerical data to identify patterns and relationships between study variables (Mohammad, 2000). This approach allows for objectivity and precision in the measurement of variables, as well as the generalisability of results to a wider population.

The type of research is correlational and explanatory, correlational research seeks to identify and analyse the relationships between the variables studied, determining how they are associated with each other (Lagarda et al., 2016). The scope of the research covers two nationally recognised universities in Ecuador: the Escuela Superior Politécnica de Chimborazo and the Universidad Técnica de Ambato.

A structured survey consisting of 24 items was used for data collection, which was designed to capture students' perceptions and attitudes on various aspects related to academic preparation and its relevance in the knowledge economy. The survey items were structured on a five-point Likert scale, ranging from (1. strongly disagree) to (5. strongly agree). Similarly, the validity of the questionnaire was carried out with a sample of 100 students giving a Cronbach's Alpha of .925, which denotes a good reliability for the application to the final sample of the study.

The study population consisted of students from two specific faculties: the Faculty of Accounting and Auditing, Economics, at the Technical University of Ambato, and the Faculty of Business Administration, Accounting and Auditing and Marketing, at the Escuela Superior Politécnica del Chimborazo. The total population included 323 students where simple random sampling was applied within parallels A, B and C of all semesters in both universities.

The application of the instrument was carried out between March and April 2024, during the process of data collection a preliminary talk was given to the students as a contextualization of the research topic. The collection was also done through an online survey using Google Forms. Subsequently, exclusion criteria were applied to those students who did not answer the questions in the totality of the items, giving finally a sample of 205 higher education students for data analysis. Informed consent was obtained from all participants, guaranteeing confidentiality and ethical use of the information provided.

Simple random sampling was used to select 205 students out of a total of 323 from two specific faculties in two Ecuadorian universities. This method ensured that each student had an equal chance of being included, increasing representativeness within the faculties. However, given the particular focus of these faculties on business and economics, the results can be compared to other fields of knowledge in higher education in Ecuador.

For the analysis of the data collected, a correlational analysis was used to determine the relationship between the different variables of interest. In addition, an analysis of variance (ANOVA) was used to identify significant differences between groups and a multiple linear regression model was used to predict the impact of several independent variables on a dependent variable. These methods made it possible to assess the relationship and effect of different factors on students' academic preparation in the context of a knowledge-based economy. All analyses were conducted using SPSS 26. statistical software, ensuring the accuracy and reliability of the results.

In this study, several hypotheses are proposed to explore the influence of different variables on the academic preparation of higher education students in Ecuador, in the context of the knowledge economy.

H_1 Students‘ soft skills have a significant effect on students’ academic preparation, reflecting the importance of competencies such as effective communication and teamwork in the educational and professional environment.

H_2 The perception of the knowledge economy has a significant effect on students' academic preparation, emphasising how individual expectations and understandings can impact labour market integration and innovation.

H_3 The impact of linkages between universities and the business sector have a significant effect on students' academic preparation.

H_4 The internationalisation of higher education institutions has a significant effect on the academic preparation of students for a globalised and competitive market.

3. Results

Through a quantitative approach and the use of advanced statistical tools, significant patterns and relationships between the factors under study were identified, providing a comprehensive view on educational quality, equitable access, linkages with the productive sector and investment in research and development. These results not only provide a better understanding of the strengths and weaknesses of the higher education system in Ecuador, but also offer a solid basis for the formulation of strategies and policies to improve the preparation of students to face the challenges and take advantage of the opportunities in the global knowledge economy.

The statistical analysis conducted highlights a strong positive correlation between academic background and soft skills, with a Pearson's coefficient of 0.713, indicating that interpersonal and communication skills are closely linked to higher education. In addition, academic background also shows positive and significant correlations with perceptions of the knowledge economy and

internationalization, with coefficients of 0.602 and 0.594 respectively, suggesting that greater awareness and exposure to global contexts can improve the quality of education students receive

On the other hand, the link between universities and the business environment also shows a moderate positive correlation of 0.407 with academic training. This finding reflects the relevance of close collaboration between educational institutions and productive sectors to foster education that responds directly to the needs of the labour market. Although weaker compared to the other correlations, this link is still essential for the development of applicable skills and the labour market insertion of graduates. In this way, the internationalisation of knowledge is achieved through active learning and the socialisation of knowledge through direct interaction with others in organisational settings.

Academic knowledge transfer managers and entrepreneurs are therefore called upon to encourage the introduction of new knowledge within organisations in order to survive and compete in the marketplace. The consistency of these correlations demonstrates the interdependence between robust academic training and the pillars of a knowledge-based economy, highlighting the vital role of higher education in preparing students for future challenges in a globalised market.

Table 1: Correlations between Student Preparation and Knowledge Economy Constructs

		FormationAcademica	Soft Skills	EK Perception	EU Linkage	Internationalization
FormationAcademica	Pearson correlation	1	,713**	,602**	,407**	,594**
Soft Skills	Pearson correlation	,713**	1	,669**	,528**	,633**
EK Perception	Pearson correlation	,602**	,669**	1	,477**	,515**
EU Linkage	Pearson correlation	,407**	,528**	,477**	1	,640**
Internationalization	Pearson correlation	,594**	,633**	,515**	,640**	1

4. Model Analysis

4.1 Adjustment and verification measures

In terms of model fit, the coefficient of determination, R^2, is 0.568, indicating that approximately 56.8% of the variability in students' academic background can be explained by the variables of internationalization, perception of the knowledge economy, university-business linkage, and soft skills included in the regression model. The $R^2_{corregido}$ is 0.560, reflecting the explained variability of the model, but adjusted for the number of independent variables included. This implies that the model is well fitted, as a large part of the variability in educational attainment is explained by the factors included, despite the penalty for the number of predictors.

Furthermore, the Durbin-Watson statistic is 2.001, which is close to the desirable range of approximately 2, indicating that the assumption of independence of the residual is met in the regression model. This strengthens the reliability of the conclusions of the analysis, ensuring that the identified relationships are statistically valid. In conclusion, these findings demonstrate the strength and validity of the model in terms of its ability to explain how various variables contribute to students' academic training in the context of the knowledge economy.

Table 2: Regression Model Adjustments

Model	R	R squared	R square adjusted	Standard Estimate Error	Durbin-Watson
1	,754a	,568	,560	2,56653	2,001

4.2 Significance of the model described

The linear regression model between the dependent variable Academic Training of the students and the predictor variables Internationalisation, Perception of the Knowledge Economy, University-Business Linkage and Soft Skills is analysed to determine the importance of the model in explaining significant variations in academic training. This analysis is performed using the ANOVA method (see table 3).

In the present study, the p-significance value is 0.000, i.e. less than 0.05, indicating that the regression equation is significantly different from a constant. This implies that at least one of the selected predictor variables plays an essential role in explaining the variability in academic background. These results demonstrate that the model is significant and effective in understanding the relationship between the predictor variables and academic background, highlighting the importance of these factors in preparing students in the context of the knowledge economy.

Table 3: ANOVA Analysis of Variance

Model		Sum of squares	gl	Quadratic mean	F	Say.
1	Regression	1733,981	4	433,495	65,810	,000b
	Residue	1317,415	200	6,587		
	Total	3051,395	204			

4.3 Coefficient of validity and proof of the model

Estimates have been obtained for the linear multiple regression model, considered the best model according to the method used. In this case, the predictors that remain significant are Soft Skills, Perception of the Knowledge Economy and Internationalization. It is important to note that while Internationalization is highly significant in the model with a p-value of 0.000, Perception of the Knowledge Economy also shows significance with a p-value of 0.002. On the other hand, University-Business Linkage is not a significant predictor, with a p-value of 0.099, similar to the constant in the model, which lacks statistical significance (see table 4).

It is important to note that Soft Skills and Internationalization, which remain in the model, are significant, implying that these coefficients are reliable predictors of students' academic background and should not cross zero at the established significance level. This highlights the importance of soft skills and internationalization in improving the quality of academic training, as shown by the estimates of the multiple regression model.

Table 4: Multiple linear regression análisis

Model		Non-standardized coefficients		Standardized coefficients	t	Say.
		B	Desv. Error	Beta		
	Soft Skills	,470	,071	,467	6,614	,000
	EK Perception	,234	,073	,206	3,213	,002
	EU Linkage	-,122	,074	-,103	-1,655	,099
	Internationalization	,281	,074	,259	3,804	,000

In the multiple linear regression analysis, it was found that soft skills have a significant effect on

students' academic background. With a coefficient of B = 0.470 and a p-value of 0.000, this result underlines the importance of competences such as effective communication and teamwork in educational and professional settings. These skills, being fundamental for employability and performance in the labour market, confirm the hypothesis that the development of soft skills is basic for high quality academic training.

In addition, students' perception of the knowledge economy also significantly influences their academic preparation. With a coefficient of B = 0.234 and a p-value of 0.002, it is evident that individual expectations and understandings of the knowledge economy positively impact students' integration into the labour market and their ability to innovate. This validates the hypothesis that greater awareness and understanding of the knowledge economy contributes to better academic training.

In contrast, the hypothesis that links between universities and the business sector improve the relevance and applicability of the education received is not confirmed in this study. With a coefficient of B = -0.122 and a p-value of 0.099, university-business linkage does not show a significant impact on students' academic training. This result suggests that, in this specific context, other factors may be more determinant in academic preparation.

Finally, the internationalization of higher education institutions shows a significant impact on the quality of academic training. With a coefficient of B = 0.281 and a p-value of 0.000, it is confirmed that exposure to global contexts and the integration of international perspectives better prepares students for a globalized and competitive market. This finding supports the hypothesis that internationalization contributes significantly to students' academic training.

5. Discussion

The results of this research show a significant correlation between academic background and several key constructs of the knowledge economy: soft skills, perception of the knowledge economy (KE), university-business (UE) linkage and internationalization. These findings are consistent with previous studies that have highlighted the importance of these factors in the context of higher education and their impact on preparing students for a globalized economy.

The positive and significant relationship between soft skills and academic background ($r = 0.713$, $p < 0.01$) underlines the relevance of competences such as effective communication, teamwork and problem solving in students' academic and professional success. This finding is in line with studies such as that of Heng & Doeur (2024) who highlight the importance of soft skills in the employability of graduates in today's highly competitive and globalized labour market. Likewise, Andrews & Higson (2008) stress that interpersonal skills are as elementary as technical knowledge in the modern business environment (Coşkun et al., 2022).

Perception of the knowledge economy also shows a significant correlation with academic background ($r = 0.602$, $p < 0.01$). This indicates that students' expectations and understandings of the knowledge economy influence their academic preparation. Sanders (2019) highlights how the internationalization of higher education is closely linked to students' ability to adapt and thrive in a global labour market. In addition, Naumova & Sokolov (2021) point out that a positive perception of the knowledge economy fosters innovation and entrepreneurship among students, better preparing graduates to contribute to the knowledge economy (Alattiq, 2023).

University-business linkage, although significant, shows a lower correlation ($r = 0.407$, $p < 0.01$) compared to other variables. This suggests that while university-business collaboration is important for students' practical training, its impact may be less direct or more mediated by other institutional and contextual factors. In the existing literature, such as the work of Rottleb (2023), points out that stronger integration between these sectors can improve the relevance and applicability of the education received, although this process may face significant challenges in its implementation (Seidl, 2023).

Finally, internationalization shows a significant correlation with academic training ($r = 0.594$, p

< 0.01), which supports the idea that exposure to international environments and the incorporation of global perspectives in the educational curriculum are essential to prepare students for a globalized labour market. Studies such as those by Sanders (2019) have documented how the internationalization of higher education contributes significantly to the quality of academic training and the preparation of students to participate in a global knowledge economy (Dobrovolska et al., 2023).

Similarly, the study by Chorev & Ball (2024) aligns with the findings of the case study in terms of the importance of considering the local context and the challenges faced by developing countries on their path towards a knowledge-based economy. Both texts highlight the need to go beyond traditional approaches and consider historical, geopolitical and cultural factors. However, the case study focuses specifically on the role of universities and the reforms needed to foster entrepreneurship. In the same vein, Zaidan et al. (2024) mention that transformation towards an entrepreneurial university is a long-term process that requires cultural change and consistent strategies, involving collaboration between academia, industry and government, which demonstrates that linking HEIs with industry organisations is vital in fostering the knowledge economy.

These results are also consistent with the research of Joo et al. (2023), who found that organizational trust and empowering leadership are key to fostering an environment of psychological safety, which in turn reduces group conflict and promotes a collaborative environment conducive to innovation (Mullet et al., 2016). This study highlights the importance of empowered leadership and an organizational culture of trust in creating an educational environment that supports high quality academics.

6. Conclusions

In conclusion, the results of this study demonstrate the critical importance of several factors in the academic training of higher education students in Ecuador, in the context of a knowledge economy. Soft skills, perception of the knowledge economy and internationalisation have been shown to have a significant and positive impact on the quality of academic training. These findings suggest that the development of interpersonal competences, a deep understanding of the knowledge economy and exposure to international environments are essential to prepare students for the challenges of the globalised labour market. On the other hand, university-business linkages, although identified as a relevant factor in the literature, did not show a significant impact in this study, indicating the need to re-evaluate and possibly redesign collaboration strategies between these sectors in the Ecuadorian context.

It is essential to remember that the transition to a knowledge-based economy is an ongoing process that requires a long-term commitment from all actors involved: government, educational institutions, the private sector and society at large through awareness-raising campaigns. It is essential to invest in human capital development, foster an entrepreneurial culture and strengthen international collaboration to take advantage of the opportunities offered by the knowledge economy and build a more prosperous and sustainable future for Ecuador.

However, this study also reveals a significant gap in the evidence related to the effective implementation of university-business linkages in Ecuador. Despite theory and previous research highlighting its importance, our results suggest that the practice of university-business linkages in Ecuador may face barriers that were not captured by our model. Future studies are needed to investigate the underlying causes of this lack of impact, exploring aspects such as the quality and nature of collaborations, the expectations of firms and universities, and the government policies that facilitate or hinder these interactions. Further analysis is also needed on how other contextual factors, such as regional differences and available resources, may influence the effectiveness of these collaborations in ensuring that students receive a relevant and applicable education that adequately prepares them to contribute to the knowledge economy.

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