Retos
Revista de Ciencias de Administración y Economía

october 2024-march 2025

Contents

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

«Retos» is a bilingual scientific publication of the Salesian Polytechnic University of Ecuador, published since January 2011 without interruption, with a fixed bi-annual periodicity (April 1 and October 1), specialized in Development and its transdisciplinary lines as Public Administration, Social Economy, Marketing, Tourism, Entrepreneurship, Management, Administrative and Economic Sciences, among others. It is a peer-reviewed scientific journal, which uses the system of external evaluation by experts (peer-review), under the methodology of blind pairs (double-blind review), according to the publication norms of the American Psychological Association (APA). The fulfillment of this system allows guaranteeing the authors an objective, impartial and transparent review process, which facilitates the inclusion of the publication in databases, repositories and international reference indexes. The Journal is published in two versions: printed (ISSN: 1390-62911) and electronic (e-ISSN: 1390-8618), in Spanish and English. All articles are available on the journal's website (**http: //retos.ups.edu.ec**).

Domicile of the publication: Salesian Polytechnic University of Ecuador, post office box 2074, Cuenca-Ecuador. Telephone (+5937) 2050000. Fax: (+5937) 4088958. E-mail: revistaretos@ups.edu.ec

EDITORIAL

Editorial Abya-Yala (Quito-Ecuador)

Av. 12 de Octubre N23-116 y Wilson, Bloque A, UPS Quito, Ecuador.

Telephones: (593-2) 3962800 ext. 2638

e-mail: editorial@abyayala.org.ec

UNIVERSIDAD POLITÉCNICA SALESIANA DEL ECUADOR

Juan Cárdenas, sdb

Rector

Turuhuayco 3-69 y Calle Vieja
Cuenca, Ecuador.
Telephone: (+593 7) 2 050 000
E-mail: srector@ups.edu.ec

TRADE

Trade with other periodicals is accepte

Go to:
Secretaría Técnica de Comunicación y Cultura
Universidad Politécnica Salesiana
Av. Turuhuayco 3-69 y Calle Vieja
Cuenca, Ecuador.
PBX: (+593 7) 2 050 000 - Ext. 1182
E-mail: rpublicas@ups.edu.ec
www.ups.edu.ec
Cuenca - Ecuador

Retos
Revista de Ciencias de Administración y Economía

Year XIV, Issue 28, october 2024-march 2025
Print ISSN: 1390-6291 / electronic ISSN:1390-8618

The management of RETOS is carried out through the following parameters:

The journal uses the anti-academic plagiarism system Crossref Similarity Check Powered by iThenticate

The articles have an identification code *(Digital Object Identifier)*

The editorial process is managed through the OJS Open Journal Systems *Open Journal System*

It is an open access publication *(Open Access)* with Creative Commons license

The *copyright* and use policies post print, are published in the Auto-Archive Policy Repository *SHERPA/ROMEO*.

The articles of the present edition can be consulted in: http: //magazines.ups.edu.ec/index.php/retos

ABYA YALA | UPS

ECUADOR
SALESIANOS
DON BOSCO

october 2024-march 2025
pp. 183-198
https://doi.org/10.17163/ret.n28.2024.01

The trinomial commitment, satisfaction and organizational justice in the binomial happiness and turnover intention

El trinomio compromiso, satisfacción y justicia organizacional en el binomio felicidad e intención de rotar

Esthela Galván-Vela
Professor at Cetys Universidad, Tijuana, Mexico
esthela.galvan@cetys.mx
https://orcid.org/0000-0002-8778-3989

Rafael Ravina-Ripoll
Professor at Universidad de Cádiz, Cádiz, Spain
rafael.ravina@uca.es
https://orcid.org/0000-0001-7007-3123

Mario Alberto Salazar-Altamirano
PhD student of the program Management in business strategies at Universidad Autónoma de Tamaulipas, Tampico, Mexico
a2231348008@alumnos.uat.edu.mx
https://orcid.org/0009-0005-7110-3378

Deisy Milena Sorzano-Rodríguez
Professor at Universidad, Tijuana, Mexico
milena.sorzano@cetys.mx
https://orcid.org/0000-0002-4862-1442

Received on: 05/07/2024 **Revised on:** 10/08/2024 **Approved on:** 28/08/24 **Published on:** 01/10/24

Abstract: the aim of this study Is to analyze the relationships between the dimensions of organizational justice, job satisfaction, and organizational commitment based on work happiness and turnover intention among academic workers in Mexico. To this end, a sample of 393 higher education faculty members in Mexico was surveyed. The statistical technique of structural equation modeling (CB-SEM) was used to analyze the data. The study's results show that, on the one hand, the variables of job satisfaction, organizational commitment, and organizational justice are interrelated among these workers, and on the other hand, that these variables positively explain work happiness and negatively explain turnover intention. This information is relevant for university leaders to undertake a strategic direction oriented towards *Happiness Management*. In this way, their human capital can perform their professional activities in an environment of positive emotions, creativity, joy, and subjective well-being.

Keywords: job happiness, turnover intention, organisational justice, job satisfaction; affective engagement.

Suggested citation: Galván-Vela, E., Ravina-Ripoll, R., Salazar-Altamirano, M. A. and Sorzano-Rodríguez, D. M. (2024). The trinomial commitment, satisfaction and organizational justice in the binomial happiness and turnover intention. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 183-198. https://doi.org/10.17163/ret.n28.2024.01

Resumen: el objetivo de este estudio fue analizar empíricamente las relaciones entre las dimensiones justicia organizacional, satisfacción laboral y compromiso organizacional con la felicidad laboral y la intención de rotar en trabajadores del ámbito docente en México. Con este fin, se encuestó a una muestra de 393 profesores de educación superior en México. Para analizar los datos se utilizó la técnica estadística de ecuaciones estructurales por CB-SEM. Los resultados alcanzados de este estudio muestran, por un lado, que las variables satisfacción laboral, compromiso organizacional y justicia organizacional están relacionados entre sí en este tipo de trabajadores, y por el otro, que estas variables explican positivamente la felicidad laboral y negativamente la intención de rotar. Esta información es relevante para que los máximos responsables de las universidades emprendan una dirección estratégica orientada al *Happiness Management*. De este modo, su capital humano podrá desempeñar sus actividades profesionales en un entorno de emociones positivas, creatividad, alegría y bienestar subjetivo.

Palabras clave: felicidad laboral, intención de rotar, justicia organizacional, satisfacción laboral, compromiso afectivo.

Introduction

The main objective of any entity in higher education is to provide its students an excellence and quality education to facilitate their insertion into the labor market (Rahm and Heise, 2019). Under this approach, its human capital must take the role of protagonists in the development and acquisition of professional competencies of future graduates of the post-COVID-19. To do this, it is necessary to develop their didactic activity in an environment of happiness and trust, that look for satisfaction and commitment of the student and their academic expertise to contribute to an ecosystem that promotes personal interactions and happiness at work. This is pivotal in emerging economy countries that require a significant volume of excellent professionals to stimulate the productive growth of their territories in order to turn it into competitive, sustainable and innovative ecosystems.

Mexico is a good example, since on the one hand it needs university communities that pivot around the job happiness and psychological health of its employees in the era of Industry 4.0. On the other hand, it requires governance models that promote the educational competences of its workers. This action would have two great benefits for Mexican universities. The first is to move towards Q1 quartile in the Shanghai ranking for the quality of its scientific productions. This requires that the heads of these institutions bet on a scientific culture based on the guiding principles of job happiness, organizational justice and the knowledge of their researchers (Galván-Vela and Ravina-Ripoll, 2023). And the second is to encourage the attraction of creative talent internationally. This resource demands environments where decent work, disruptive thinking or collective well-being are stimulated.

In this way, Mexico, as the target country of this research, will have a university community of people involved in transforming its economy to the challenges demanded by the education of the future. And thus, to be able to generate human capital that addresses, in a proactive way, the challenges derived from the emerging technological advances linked to the tools of artificial intelligence. In short, the promotion of a culture of job happiness and organizational justice in Mexican universities will contribute to academic and scientific advancement through teachers committed to the correct training of professionals who meet global challenges.

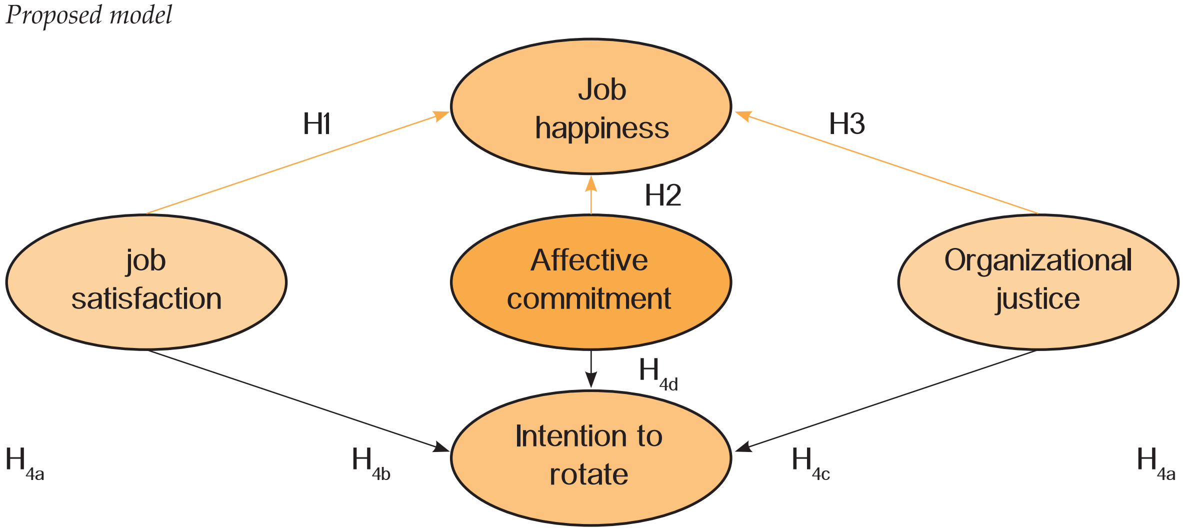
Therefore, the idea is to create organizations that promote the culture of the three T: Talent, Technology and Business Transfer under the magnifying glass of corporate happiness, organizational justice and job satisfaction. Hence, the objective of this scientific article is to evaluate the relationship between job satisfaction, affective commitment and organizational justice with happiness and the intention to rotate by university professors in Mexico. This research aims to provide a clear understanding of how these factors interrelate and affect the working environment of teachers in higher education institutions. By focusing on these aspects, the aim is to identify which elements are decisive to foster a work environment in which teachers not only feel satisfied and engaged, but also valued and motivated to remain in their institutions.

This research contributes to the scientific production that revolves around the culture of *Happiness Management*. First, it provides a detailed analysis of how organizational fairness, affective engagement, and job satisfaction influence intention-to-rotate and happiness constructs at work. Second, it contributes to the body of literature that explores the happiness of human capital in the university environment of emerging countries. Thirdly, it helps to generate a climate of awareness that reduces the labor turnover of the labor force that is the subject of this research. And finally, this article reinforces the importance of creating university environments that promote the collective happiness of their internal clients as a vehicle for organizational success and knowledge transfer.

Literature review

In this section, we present the analysis of the-state-of-the-art of job satisfaction, affective commitment, organizational justice, job happiness and the intention to rotate. It is relevant to mention that these elements have been previously studied in various organizational contexts, but their specific interaction in the university environment of emerging countries, such as Mexico, requires further exploration (Galván-Vela and Ravina-Ripoll, 2023). This review aims to contextualize current research and frame the need for a comprehensive management approach that considers how these variables interact to influence the well-being and retention of academic staff of Mexican universities. The result of this review led to approach various research hypotheses, which pose relationships established theoretically in the model illustrated in Figure 1.

Figure 1
Proposed model



Job satisfaction

Job satisfaction is the degree that indicates if a person is emotionally happy in the performance of his/her job (Galván-Vela *et al.*, 2022). Regarding this definition, investigations show not only that this construct contributes significantly in the productive and technological development of corporations, but also in generating an internal climate within organizations that encourages professional performance, radical innovation or job happiness (García-Salirrosas, 2024; Rogowska and Meres, 2022). All these factors are key to cultivating a business culture that promotes justice and organizational commitment from the perspective of *Happiness Management*.

In this sense, studies such as Moura *et al.* (2020) or Quijano and Muñoz (2020), indicate that corporations must formulate leadership styles and human resources policies that stimulate the job satisfaction of their employees as a catalyst for collective happiness and competitive advantage (Butt *et al*., 2020). In this line, Carstensen and Klusmann (2021) and Ravina-Ripoll *et al.* (2024), argue that job satisfaction not only relies in the salary, but in other elements, among them, the ability to work in an environment where professional growth and subjective well-being are stimulated.

In this way, the internal clients of the companies will enjoy a mood that will have a noticeable effect on their levels of motivation and job satisfaction. This contributes to a significant reduction in the number of sick leave and voluntary abandonment of employees (Casely-Hayford *et al*., 2022). As a result, employee job satisfaction becomes an essential resource for managers to enhance the commitment of their human capital. Under this approach, there is evidence that labor satisfaction positively affects the professional performance and commitment of workers when organizations consider organizational justice as a driver of labor happiness for their human capital (e.g. Mert *et al.,* 2022).

Enriched with theoretical-empirical models that demonstrate that job satisfaction is not only a synonym of business benefits but that it also constitutes to an internal source of corporate happiness in management models based on the philosophy of *Happiness Management* (Ravina-Ripoll *et al*., 2022), universities begin to be aware that the job satisfaction of their staff plays a main role in their professional performance (Rogowska and Meres, 2022). Some research shows that the job satisfaction of their teachers is fostered by the implementation of collaborative pedagogical styles that promote the collective happiness of their students (e.g. Banerjee *et al*., 2017). Based on this, university governance should consider the job satisfaction of this group as an instrument to encourage a community of committed teachers (Castañeda-Santillán and Sánchez-Macías, 2022).

Based on these premises, the first research hypothesis was developed:

H_1: *Job satisfaction positively influences job happiness*

Affective commitment

Affective commitment is the emotional attachment of an employee to the organization in which he/she works. In this regard, Fonseca-Herrera *et al.* (2019) point out that this type of commitment provides workers with high doses of job satisfaction. To do this, managers must create an organizational culture in which people feel happier and committed to the strategic objectives of senior management. In addition, the creation of a positive work environment, where employees perceive fairness and equity in organizational decisions, reinforces their sense of belonging and loyalty to the institution.

Literature shows two fundamental aspects associated with affective engagement. The first is that this variable significantly reduces people's emotional exhaustion, psychological stress or job dissatisfaction (Van Waeyenberg *et al*., 2022). These elements, and multiple other factors, are crucial to develop management models that promote the economic growth of companies from the synergies of disruptive innovation, productive efficiency and the subjective well-being of their human capital. The second is that the promotion of affective commitment is a basic strategic resource not only to stimulate the attraction of creative talents, but also to stoke a business identity where employees feel recognized by their hierarchical superiors (Novitasari *et al*., 2020).

These last two elements are especially relevant in the context of higher education institutions in Mexico. A sector characterized by having high levels of rotation in its academic professionals, mainly due to the scarcity of formal full-time employment contracts and precarious salaries in disagreement with the professional profiles of university teachers (Barbosa-Bonola and Ávila-Carreto, 2022). This results in teachers with low levels of job satisfaction and commitment to their institutions (Park, 2005).

To change this situation, there are organizations that carry out corporate governance that implement leadership styles aimed at cultivating an environment of promotion of happiness and commitment (Meyer *et al*., 2019). In this way, workers acquire feelings of loyalty to their entities.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

In this sense, Zheng *et al.* (2019) show that the affective commitment of employees is an essential component for internal clients to undertake collaborative learning models that encourage the academic happiness of future graduates. Likewise, Bahat and Işık (2023), show that universities with their own culture towards promoting organizational commitment are distinguished by having happy workers in the performance of their professional activities.

In this line, Moon and Park (2024) have shown that the affective commitment of the collective object of this research is significantly increased when corporate governance promotes the academic happiness of all members of the university community. On the other hand, Kim and Lee (2023) find that affective engagement has an indirect effect on happiness when mediated by the resilience dimension. This is because these entities promote an affective commitment of hierarchical and authoritarian type that stimulates, among other things, the rotation of their teachers.

In accordance with these novel findings, the following research hypothesis is proposed:

$H_{2:}$ Affective engagement positively influences job happiness

Organizational Justice

Organizational justice has its origins in humanist, egalitarian and motivational theories (Ríos and Loli, 2019). On this basis, the researchers explore, on the one hand, how employees perceive equity in their interpersonal relationships with their hierarchical superiors and peers. On the other hand, to understand which are the workers' emotional and behavioral responses to these perceptions (Galván-Vela *et al*., 2022). This information is crucial for managers to carry out strategic management based on the work interactions of their internal clients (Mert *et al*., 2022), because organizational justice is a key element to design management models based on job satisfaction, affective commitment and job happiness of their human capital (Sheeraz *et al*., 2021).

Regarding scientific research on the topic of organizational justice at the university level, some authors show that organizations lacking organizational justice are characterized not only by the emotional exhaustion and stress of their human capital, but also by a climate devoid of happiness and interpersonal relationships (Akar and Ustuner, 2019). In this line, Ghran *et al.* (2019) show a solid significant relationship between organizational justice and job satisfaction in today's globalized society. Likewise, Yavuz (2010) notes that organizational justice positively affects the organizational commitment of university professors. Based on this research, Demir (2016) demonstrates the existence of a robust relationship between the dimensions of organizational justice and job satisfaction in the context of university professors. Also, Jandaghi *et al.* (2012) empirically certify the relationship between organizational justice and job happiness in this same group.

Based on these findings, the following research hypothesis is proposed:

$H_{3:}$ Organizational justice positively influences job happiness

Job happiness

Since the time of Ancient Greece, the pursuit of happiness is considered the sole and ultimate end of the human being, an issue that has not gone unnoticed by social science researchers. In this sense, Ravina-Ripoll *et al.* (2021, p. 3) point out that "this growing interest in happiness studies in the field of organizations is due to the fact that this intangible asset is one of the most important that managers have to cultivate workplace happiness". This brings multiple economic and social benefits to corporations when they implement the innovative *Happiness Management* culture through job happiness. Therefore, job happiness is defined when people not only enjoy the daily performance of their professional position, but also enjoy it and the social relations generated in work environments (Chaiprasit and Santidhirakul, 2011). Under this approach, job happiness is conceptualized as a multidimensional dimension that is made up of intrinsic and extrinsic factors, among them, joy, subjective well-being, satisfaction or positive emotions. In this sense, Ravina-Ripoll *et al.* (2021) point out that job happiness is the positive emotional state that people experience in the execution of their productive activities within organizations.

In the field of university governance, a stream of studies has focused on analyzing the influence of the variables organizational climate, psychological health, salary remuneration and professional performance on the work happiness of the group object of this scientific study (Rizqi and Qamari, 2022). As a consequence, some authors highlight that organizational commitment, job satisfaction, and subjective well-being have a significant impact on their job happiness (e.g. Galván-Vela and Ravina-Ripoll, 2023; Sudibjo and Sutarji, 2020).

However, the literature that examines job happiness in university organizations is scarce from the discipline of *Happiness Management* (Rizqi and Qamari, 2022). This implies the absence of works that explore quantitatively how the trinomial affective commitment, job satisfaction and organizational justice affect the binomial happiness and intention to rotate. Especially when there is recent research that argues that organizational justice, job satisfaction and organizational commitment are negatively linked to the intention of rotating university professors (Ertürk, 2022).

Based on these arguments, the following research hypotheses are stated:

H_{4a}: Job happiness negatively influences the intention to rotate

H_{4b}: Job satisfaction negatively influences the intention to rotate

H_{4c}: Organizational justice negatively influences intention to rotate

H_{4d}: Affective engagement negatively influences the intention to rotate

Consequently, this study advances in the research of *Happiness Management* at the university context by proposing a quantitative analysis of the impact of affective commitment, job satisfaction and organizational justice on happiness and the intention to rotate. The hypotheses proposed are based on the need to deepen these dynamics to develop strategies that promote the well-being and retention of academic talent.

Methodology

This study is quantitative, non-experimental, cross-sectional, correlational and causal. Its purpose is to determine the inferential relationships of the constructs that make up the conceptual model of this research. To do this, a questionnaire of 50 questions has been developed, adapted from known and validated scales for each variable. The responses of the questionnaire were measured on a Likert scale of 1 to 5 points. Regarding the dimension of labor happiness, the scale of Ramírez-García *et al.* (2019) has been used, which is composed of ten items. Regarding the affective commitment variable, the Meyer and Allen scale (1991) was used, only in its "affective" dimension that is composed of six items. Organizational justice was also assessed using a fifteen-item scale developed by Niehoff and Moorman (1993). Regarding the job satisfaction factor, the authors of this research used the five-item scale suggested by Veray-Alicea (2016). On the intention to rotate, the three items of the scale of Mobley *et al.* (1978) were used. The choice of these scales is justified in the multiple validations of these instruments in different sectors and territories.

The population of this study was considered "indefinite", given that the total number of people dedicated to university teaching in Mexico exceeds the statistical minimum of 100,000 elements, recommended for this category. The sample was drawn by means of the formula Z for indefinite populations, considering a margin of error of +/- 5% and a level of confidence of 95%, so a minimum sample was considered, 385 observations; however, 392 surveys were collected in a non-probabilistic way, but considering little more than ten observations per federal entity in Mexico, a country that is composed of 32 states.

The human capital who responded to the survey were teachers from public and private universities in Mexico, contacted through social networks, so they were provided with a digitized survey. The demographic profile of the indivi-

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

duals surveyed is characterized by the fact that 55.9% belong to the female gender, 56.4% are married, 85.5% have the degree of academic doctor, 78.6% work in public universities and 74.7% are dedicated exclusively to research (Table 1).

Table 1
Socio-demographic profile of participants

Category	Item	Absol	%
Gender	Female	219	55.9
	Male	173	44.1
Marital status	Married	221	56.4
	Divorced/or	33	8.4
	Free Union	43	11
	Single	91	23.2
	Widow	4	2.3
Education	Bachelor of Secondary Education	9	1.8
	Bachelor of Arts	1	0.3
	Master's Degree	44	11.2
	University Doctorate	347	88.5
Nature of the organization	Private	84	21.4
	Public	308	78.6
Total		**392**	**100**

The data were processed using various statistical techniques. Normality tests were initially performed to verify the distribution of the data. Subsequently, correlation analyzes were carried out to explore the relationships between the variables. An Exploratory Factor Analysis (EFA) was also used to validate the underlying dimensions of the variables. Finally, the method of structural covariance equations was used to evaluate the proposed model and its hypotheses, allowing a detailed analysis of the structural relations between the studied variables. The results obtained provide relevant information for strategic management in universities, aimed at promoting job happiness and reducing the intention of rotation of teaching staff.

Results and discussion

Based on the quantitative information in Table 1, we carried out, on the one hand, a Pearson correlation analysis to analyze the relationships between the variables object of the model proposed in this study, and on the other hand, to develop an exploratory factor analysis to estimate the validity and internal consistency of the latent variables of our study. Based on the above, the tests of univariate and multivariate normality, as well as common variance bias, were practiced. According to its results, the structural equations model technique was used to explore the statistical robustness of the research hypotheses expressed in Figure 1 by using the SPSS-AMOS version 24 software.

Correlational analysis

In order to identify the bivariate relationships between the parameters: organizational justice, job satisfaction, affective commitment, job happiness and intention to rotate, the Pearson correlation coefficient was applied. The results achieved show four basic elements. The first, that the dimension organizational justice is positively associated with the construct labor happiness (0.79), and negatively with the vector intention to rotate (-0.43). The second, that the variable job satisfaction is significantly related to job happiness (0.72), and in the opposite direction with the intention to rotate factor (-0.46). The third, that the affective commitment parameter is positively linked to job happiness (0.65), and negatively with the intention of rotating (-0.14). And finally, a negative relationship is perceived between the constructs labor happiness-intention to rotate (-0.48).

Table 2
Bivariate correlations

	Organizational Justice	Job satisfaction	Affective commitment	Job Happiness	Intention to rotate
Justice / Organizational	1				
Job satisfaction	.50**	1			
Engagement / Affective	.52**	.57**	1		
Job Happiness	.79**	.72**	.65**	1	
Intention to rotate	(-).43**	(-).46**	(-).14**	(-).48**	1

*Note.*** Significant results at p 0.01.

Exploratory factor analysis

To observe the underlying structure of the indicators that make up the variables of this work, exploratory factor analysis by the method of main components was used. This statistical test allows, on the one hand, to determine whether the instrument items are suitable for the measurement of the constructs of the estimated model in this research. And on the other hand, to evaluate the usefulness of causal relations with the mission of being able to carry out the technique of model of structural equations (Thakkar, 2020).

Regarding the first question, Table 3 reveals that the exploratory factor analysis (EFA) carried out in this study shows the usefulness of all the items related to the scales used in this article to analyze the dimensions of job satisfaction, intention to rotate and affective commitment. The same does not happen with the parameters of job happiness and organizational justice. This led to the elimination of five items on the labor happiness scale of Ramírez-García *et al.* (2019) and ten items on the organizational justice scale of Niehoff and Moorman (1993). Some of the reagents of the Ramírez-García scale were not considered appropriate when factoring in two elements, one of them was notably about "job happiness" with reagents such as "I enjoy my work" "I enjoy doing my job well" or "my internal motivation is high", however, the deleted items included a factor not related to happiness such as "I have good health" "love occupies an important place in my life" or "I am extroverted".

Table 3
Exploratory Factor Analysis

Variable	Job satisfaction	Affective commitment	Organizational Justice	Job Happiness	Intention to rotate
Correlations between items	0.768 < - > 0.874	0.508 < - > 0.859	0.529 < - > 0.805	0.550 < - > 0.844	0.645 < - > 0.814
Level of correlations	Discharge	Discharge	Discharge	Discharge	Discharge
Significance	0.000	0.000	0.000	0.000	0.000
Determinant	0.003	0.009	0.036	0.028	0.154

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Variable	Job satisfaction	Affective commitment	Organizational Justice	Job Happiness	Intention to rotate
Communalities	0.814 < - > 0.894	0.665< - > 0.823	0.574 < - > 0.802	0.643 < - > 0.742	0.721 < - > 0.872
Level of communities	Adequate	Adequate	Adequate	Adequate	Adequate
KMO Test	0.903	0.907	0.844	0.785	0.706
Barlett test	0.000	0.000	0.000	0.000	0.000
Factors extracted	1	1	1	1	1
Preserved items	5	6	5	5	3
Variance explained	86.23 %	72.81 %	72.03 %	70.63 %	56.13 %

In the table above it can be seen that the levels of correlations between the variables are high (Roy-García *et al.*, 2019). Likewise, the determinants achieved in this inferential study are appropriate for all constructs, as they are close to zero according to the studies of Hair *et al.* (2020). Regarding the communities of the variables subject to this research, they are all characterized by being greater than 0.5, as recommended in this type of analysis (Saeed *et al.*, 2021). With respect to the Kayser-Meyer Olkin test, the data obtained show a level close to one in each of the five constructs of this theoretical model. In addition, the Barlett sphericity test, which determines the previous and significant relationships in the indicators, is statistically significant for each of the items conserved for the analysis of each of the latent dimensions (Shrestha, 2021). This finding is empirically robust when the explained variances of the vectors organizational justice, job satisfaction, affective commitment, job happiness and intention to rotate are greater than 50% (Purwanto and Sudargini, 2021).

Once the exploratory factor analysis was carried out, a detailed analysis of the elements that make up the variables was elaborated. The results indicate, on the one hand, that all elements present levels of asymmetry and kurtosis within acceptable limits (less than 1.5), as well as the absence of atypical data according to the Mahalanobis d-squared test and Boxplot graph inspection. On the other hand, the Kolmogorov-Smirnov technique suggests a normality in the data by showing significance levels with $p<0.05$ (Yap and Sim, 2011). All these quantitative findings allow us to continue advancing towards the verification of the reliability and internal consistency of the measurement scales used in this work.

Analysis of causal relationships

After validating the significant associations of the latent variables, the next step was to proceed to contrast the research hypotheses using a model of structural equations. A multivariate statistical technique widely used in the social sciences. This is basically due to its ability to detect causal relationships, flexibly, because this technique takes into account measurement errors during the development of its empirical analysis (Hair *et al.*, 2020).

Reliability and validity

Then, the reliability and validity of the constructs of the structural model of this work was calculated. Reliability has been measured through the Cronbach Alpha coefficient and the Composite Reliability Index (CRI). Both inferential tests are valid when their indicators are higher than 0.7 (Fu *et al.*, 2021). The values obtained in each of the constructs of this research are above 0.7. This circumstance reflects the reliability of the parameters considered in this article. This fact can be clearly seen in Table 4.

Table 4
Reliability

Reliability		
	Cronbach's alpha	**CRI**
Job satisfaction	0.96	0.953
Organizational Justice	0.963	0.928
Affective commitment	0.924	0.938
Job Happiness	0.908	0.864
Intention to rotate	0.882	0.929

Once evaluated the reliability of the model parameters, the next step is to estimate their convergent and discriminant validity. Regarding the convergent validity, indicate that it has been evaluated through the extracted mean variance (AVE). Cheung *et al.* (2023), state that when the mean variance extracted is greater than 0.5 there is convergent validity, as in this case (see table 5). To measure the discriminant validity, the authors of this article opted for the Fornell-Larcker criterion, based on the fact that the values of the mean variance extracted (AVE) of each of the variables (organizational justice, job satisfaction, affective commitment, job happiness and intention to rotate) must be higher than the records of the existing bivariate correlations between them. In this sense, the results obtained confirm the discriminating validity of this theoretical model. This can be seen in the table below.

Table 5
Convergent and discriminatory validity

	Convergent validity	Discriminant validity				
	BIRD	**SL**	**JO**	**CA**	**FT**	**IR**
Job satisfaction	0.862	0.862				
Organizational Justice	0.72	0.268	0.72			
Affective commitment	0.752	0.328	0.27	0.752		
Happiness at work	0.706	0.503	0.43	0.426	0.706	
Intent to rotate	0.814	0.208	0.193	0.256	0.197	0.814

Adjustment Indicators

According to the quantitative data described above, the goodness of the adjustment of the model described in Figure 1 was quantitatively calculated in order to be able to contrast the research hypotheses. The following adjustment indicators were used: the Chi-square ratio over degrees of freedom (CMIN), the mean square approximation error (RMSEA), the comparative adjustment index (CFI), the incremental adjustment index (IFI) and the Turkey Lewis index (TLI) and the parsimony adjustment goodness index (PGFI).

These adjustment indicators mention that the model under study has a good fit when these statistical conditions occur. The first, that the value of the Chi-square ratio over degrees of freedom (CMIN) shows that the Chi-square (Xi2) is twice the degrees of freedom (GL) (Hancock *et al.*, 2018). The second, the mean quadratic approximation error (RMSEA) approaches zero (Kenny *et al.*, 2014). The third, the comparative adjustment index (CFI), the incremental adjustment index (IFI) and the Turkey Lewis index (TLI) are above 0.9 (Jain and Raj, 2013). Finally, the index of goodness of parsimony adjustment (PGFI) is between 0.5 and 0.7 (Henseler and Sarstedt, 2012).

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

The values obtained from the adjustment indicators mentioned above are presented in Table 6. This table shows that the structural model in this article shows an acceptable and parsimonious fit.

Table 6

Structural model adjustment indicators

Indicator	Expected value	Value obtained	Adjustment
CMIN	Double degrees of freedom	Xi2= 1399; GL= 414	Acceptable
RMSEA	0.05 < and> 0.08	0.078	Acceptable
IFC	0.90 to 1	0.905	Acceptable
IFI	0.90 to 1	0.906	Acceptable
TLI	0.90 to 1	0.893	Moderate
PGFI	0.5 < and> 0.7	0.672	Acceptable

Hypothesis contrast

In order to contrast the validity of the research hypotheses proposed in this work, the effect indicator was used to evaluate the magnitude and direction of the interrelations between two variables. Secondly, measurement error (S.E.) was used to provide an optimal estimate of the parameters in this study. Third, the critical ratio (CR) was used to determine the inferential representativeness of the bivariate relationships of the constructs (organizational justice, job satisfaction, affective commitment, job happiness and intention to rotate). According to Naldi and Flamini, (2014), this index is significant when this value exceeds +/- 1.96. Fourth, the Fisher significance test (P) indicates that when its value is less than 0.05, the validity of the research hypotheses is confirmed (Zhang and Wu, 2022).

Table 7

Hypothesis contrast

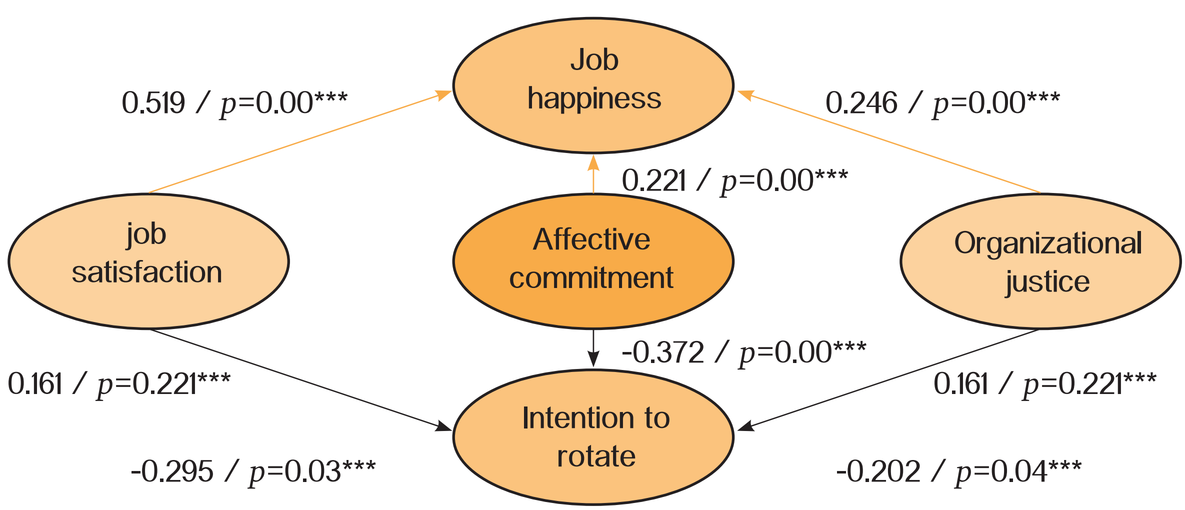
Hypothesis	Relationships	Effect	H.E.	C.R.	P	Contrast
H1	Satisfaction-Happiness	0.519	0.48	10.88	0.00	Accepted
H2	Affective Commitment-Happiness (FL)	0.221	0.045	4.95	0.00	Accepted
H3	Justice-Happiness	0.246	0.38	6.4	0.00	Accepted
H4a	Happiness – Intention to Rotate (IR)	0.161	0.13	1.24	0.214	Rejected
H4b	Satisfaction - IR	-0,295	0,098	-3.01	0,003	Accepted
H4c	Justice-IR	-0.202	0,071	-2.85	0,004	Accepted
H4d	Affective Engagement-IR	-0.372	0.08	-4.64	0.00	Accepted

In view of the statistical data in Table 7, it is evident that there is a positive relationship between the parameters of job satisfaction, affective commitment and organizational justice with the dimension of job happiness. These findings are consistent with the literature on *Happiness Management*, which suggests that satisfaction and commitment in the work environment are determining factors for the subjective well-being of employees (Díaz-García *et al.*, 2024). Consequently, the acceptance of the hypotheses H1, H2 and H3 is empirically corroborated. These results are aligned with previous studies that have shown that organizational fairness and affective engagement are key predictors of happiness at work, as they improve both performance and overall employee satisfaction (Kim and Lee, 2023; Galván-Vela and Ravina-Ripoll 2023).

On the other hand, the hypotheses H4b, H4c, and H4d confirm the existence of negative associations between the variables of job satisfaction, organizational justice and affective commitment with the intention-to-rotate construct. This evidence reinforces the findings of Aryani *et al.* (2021), who argue that perceived justice and emotional engagement with the organization significantly reduce the propensity to seek employment in other institutions. The negative relationship between job satisfaction and intention to rotate has also been widely documented, highlighting the importance of these factors for talent retention (Ertürk, 2022; Mobley, 1982).

However, the H4a hypothesis is rejected, indicating the absence of a direct link between job happiness and the intention to rotate. This finding, while unexpected, aligns with recent studies suggesting that happiness at work alone is not a sufficient determinant for employee retention, especially in contexts where other factors, such as professional development or growth opportunities, carry greater weight (Rizqi and Qamari, 2022). In addition, this result highlights the complexity of the construct of job happiness and its interaction with other organizational variables in the era of Industry 4.0, where leaders have a crucial role in cushioning the intention to rotate their human capital (Ravina-Ripoll *et al.*, 2022).

Figure 2
Structural model



Based on the results presented in this article, not only our research hypotheses are contrasted, but also the robustness and predictive quality of the structural model presented in Figure 2 is deduced. This suggests that the proposed model, which integrates job satisfaction, affective commitment and organizational justice, is adequate to predict the happiness and retention of academic staff at the university level, which reinforces the importance of these variables in the management of human resources in higher education institutions.

Conclusions

This work is part of the strategic management studies that are concerned with cultivating job happiness within organizations, including universities. In the context of Mexican universities, one of the valuable results of this research has been to demonstrate that organizational justice, job satisfaction and affective commitment are positively associated with the job happiness of their academic professionals. This finding is crucial to promote corporate governance that stimulates the performance and professional growth of its human capital from the culture of *Happiness Ma-*

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

nagement. Another revealing finding is that the intention to rotate decreases not only with the job satisfaction and the affective commitment, but also with the perception of organizational justice within these corporations. To address these challenges, one promising avenue would be for universities to promote the trust and subjective well-being of their employees.

The value of this research for the area of Organizational Behavior within the Administrative Sciences lies in its contribution to understanding how psychological and cultural factors, such as organizational justice and affective engagement, directly influence staff well-being and retention. This study not only provides empirical evidence on the importance of these elements in the university context, but also opens the door for future research that delves into management strategies that can strengthen employee loyalty and performance in educational organizations. In doing so, this research offers a conceptual framework that can be used to design more effective organizational policies that promote a positive work environment, which is essential for the sustainable development of educational institutions in emerging countries.

In this line, future research should explore how universities' academic success depends heavily on an environment geared toward fostering their teachers' creativity, active participation, loyalty, and happiness. Finally, it should be noted that the results of this study are subject to some theoretical and methodological limitations, including transversality, the design of the causal model, sample size, the choice of variables or the geographical framework of the research. However, these limitations have not prevented us from providing a robust conceptual model that enriches the literature on job happiness in the environment of universities in emerging countries.

References

Aryani, R., Widodo, W. and Chandrawaty, C. (2021). How adversity quotient and organizational justice reduce turnover intention empirical evidence from Indonesia. *The Journal of Asian Finance, Economics 8*(6), 1171-1181. https://doi.org/10.13106/jafeb.2021.vol8.no6.1171

Bahat, İ. and Işık, M. (2023). The relationship between teachers' school happiness, organizational commitment, and self-efficacy. *Journal of Human and Social Sciences*, *6*, 279-308. https://doi.org/10.53048/johass.1354337

Banerjee, N., Stearns, E., Moller, S. and Mickelson, R. A. (2017). Teacher job satisfaction and student achievement: The roles of teacher professional community and teacher collaboration in schools. *American Journal of Education*, *123*(2), 203-241. https://doi.org/10.1086/689932

Barbosa-Bonola, V. and Ávila-Carreto, A. (2022). El trabajo docente ante el Covid-19: un acercamiento desde la precariedad laboral del profesor de asignatura. *IE Revista de Investigación Educativa de la REDIECH*, 13, 1-14. https://doi.org/10.33010/ie_rie_rediech.v13i0.1266

Butt, R. S., Wen, X. and Hussain, R. and. (2020). Mediated effect of employee job satisfaction on employees' happiness at work and analysis of motivational factors: Evidence from telecommunication sector. *Asian Business Research Journal*, *5*, 19-27. https://doi.org/10.20448/journal.518.2020.5.19.27

Carstensen, B. and Klusmann, U. (2021). Assertiveness and adaptation: Prospective teachers' social competence development and its significance for occupational well-being. *British Journal of Educational Psychology, 91*(1), 500-526. https://doi.org/10.1111/bjep.12377

Casely-Hayford, J., Björklund, C., Bergström, G., Lindqvist, P. and Kwak, L. (2022). What makes teachers stay? A cross-sectional exploration of the individual and contextual factors associated with teacher retention in Sweden. *Teaching and Teacher Education*, *113*, 103664. https://doi.org/10.1016/j.tate.2022.103664

Castañeda-Santillán, L. L. and Sánchez-Macías, A. (2022). Satisfacción laboral y *burnout* en personal docente. *Retos Revista de Ciencias de la Administración y Economía*, *12*(24), pp. 230-246. https://doi.org/10.17163/ret.n24.2022.03

Chaiprasit, K. and Santidhiraku, O. (2011). Happiness at work of employees in small and medium-sized enterprises, Thailand. *Procedia-Social and Behavioral Sciences*, *25*, 189-200. https://doi.org/10.1016/j.sbspro.2011.10.540

Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S. and Wang, L. C. (2023). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management*. https://doi.org/10.1007/s10490-023-09871-y

Demir, K. (2016). Relations between teachers' organizational justice perceptions and organizational commitment and job satisfaction in the school: A meta-analysis. *Journal of Human Sciences, 13*(1), 1408-1417.

Díaz-García, G. A., Ortiz-de-Urbina-Criado, M. and Ravina-Ripoll, R. (2024). Happy leadership, now more than ever. *International Journal of Happiness and Development*, *8*(3), 223-243. https://doi.org/10.1504/IJHD.2024.137967

Ertürk, R. (2022). The effect of teachers' quality of work life on job satisfaction and turnover intentions. *International Journal of Contemporary Educational Research, 9(*1), 191-203. https://doi.org/10.33200/ijcer.1022519

Fonseca-Herrera, J.M., Cruz, C.E. and Chacón, L. (2019). Validación del instrumento de compromiso organizacional en México: evidencias de validez de constructo, criterio y confiabilidad. *Revista de Psicología (PUCP)*, *37*(1), 7-29. https://dx.doi.org/10.18800/psico.201901.001

Fu, Y., Wen, Z. and Wang, Y. (2021). A comparison of reliability estimation based on confirmatory factor analysis and exploratory structural equation models. *Educational and Psychological Measurement*, *82*(2), 205-224. https://doi.org/10.1177/00131644211008953

Galván-Vela, E., Ravina Ripoll, R., Ahumada-Tello, E. and Tobar-Pesantez, L. B. (2022). Dimensions of organisational justice impact job satisfaction and turnover intention in emerging economics. *Polish Journal of Management Studies, 25*(2), 157-173. https://doi.org/10.17512/pjms.2022.25.2.10

Galván-Vela, E. and Ravina-Ripoll, R. (2023). Justicia organizacional y su relación con la satisfacción laboral de los trabajadores: caso México. En M. J. Foncubierta (ed.), *El trabajo decente: hacia la dignidad y la realización de la persona trabajadora*. Tirant lo Blanch.

García-Salirrosas, E. E. (2023). Impacto del clima organizacional proambiental en el compromiso y comportamiento sostenible de los trabajadores en Perú. *Retos Revista de Ciencias de la Administración y Economía, 13*(26), 205-222. https://doi.org/10.17163/ret.n26.2023.02

Ghran, L. A. Z., Jameel, A. S. and Ahmad, A. R. (2019). The effect of organizational justice on job satisfaction among secondary school teachers. *International Review, 3*(3-4), 82-90.

Hair, J. F., Howard, M. C. and Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, *109*, 101-110. https://doi.org/10.1016/j.jbusres.2019.11.069

Hancock, G. R., Stapleton, L. M. and Mueller, R. O. (2018). *The reviewer's guide to Quantitative Methods in the Social Sciences*. Routledge.

Henseler, J. and Sarstedt, M. (2012). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics, 28*(2), 565-580. https://doi.org/10.1007/s00180-012-0317-1

Jain, V. and Raj, T. (2013). Evaluating the variables affecting flexibility in FMS by exploratory and confirmatory factor analysis. *Global Journal of Flexible Systems Management, 14*(4), 181-193. https://doi.org/10.1007/s40171-013-0042-9

Jandaghi, G., Alimadadi, A., Fard, S. M. H. and Golverdi, M. (2012). Relationship between organizational justice and staff happiness in the institutes of standard & industrial research of Qom province and jihad agricultural management in Qom city. *Human Resource Management*, *43*, 6618-6626.

Kenny, D. A., Kaniskan, B. and McCoach, D. B. (2014). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods & Research, 44*(3), 486-507. https://doi.org/10.1177/0049124114543236

Kim, J. K. and Lee, M. H. (2023). Structural relationship between social support, resilience, organizational commitment, happiness and turnover intention of early childhood and preschool teachers. *The Journal of Korea Open Association for Early Childhood Education*, 28(6), 423-448. https://doi.org/10.20437/KOAECE28-6-18

Meyer, J. and Allen, N. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1 (1),* 61-89. https://doi.org/10.1016/1053-4822(91)90011-Z

Mobley, W. H., Horner, S. O. and Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology, 63*(4), 408-414. https://doi.org/10.1037/0021-9010.63.4.408

Moon, K. S. and Park, J. W. (2024). A study on the impact of social support on the organizational commitment of infant and toddler teachers: Focusing on the mediating effects of self-efficacy and happiness. *Journal of Service Management*, *2*(1), 130-156. https://doi.org/10.15706/jksms.2024.25.1.006

Moura, A. A. D., Bernardes, A., Balsanelli, A. P., Dessotte, C. A. M., Gabriel, C. S. and Zanetti, A. C. B. (2020). Liderazgo y satisfacción laboral en el contexto del Servicio Móvil de Atención de Emergencia. *Revista Latino-Americana de Enfermagem*, *28*, e3260. https://doi.org/10.1590/1518-8345.3455.3260

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Naldi, M. and Flamini, M. (2014). Correlation and concordance between the CR4 index and the HerfindahHirschman index. *Social Science Research Network*. https://doi.org/10.2139/ssrn.2502764

Niehoff, B. P. and Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal 36*(3), 527-556. https://doi.org/10.5465/256591

Novitasari, D., Asbari, M., Wijaya, M.R. and Yuwono, T. (2020). Effect of organizational justice on organizational commitment: Mediating role of intrinsic and extrinsic satisfaction. *International Journal of Science and Management Studies, 3*(3), 96-112.

Park, I. (2005). Teacher commitment and its effects on student achievement in American high schools. *Educational Research and Evaluation, 11*, 461-485. https://doi.org/10.1080/13803610500146269

Purwanto, A. and Sudargini, Y. (2021). Partial Least Squares Structural Equation Modeling (PLS-SEM) Analysis for Social and Management Research: A literature review. *Journal of Industrial Engineering & Management Research, 2*(4), 114-123. https://doi.org/10.7777/jiemar.v2i4.168

Ramírez-García, C., De Perea, J. G. Á., y Del Junco, J. G. (2019). La felicidad en el trabajo: validación de una escala de medida. *Rae-revista De Administracao De Empresas, 59*(5), 327-340. https://doi.org/10.1590/s0034-759020190503

Ravina-Ripoll, R., Díaz-García, G. A., Ahumada-Tello, E. and Galván-Vela, E. (2024). Emotional wage, happiness at work and organisational justice as triggers for *Happiness Management*. *Journal of Management Development*, *43*(2), 236-252. https://doi.org/10.1108/JMD-02-2023-0046

Ravina-Ripoll, R., Núñez-Barriopedro, E., Almorza-Gomar, D. and Tobar-Pesantez, L. B. (2021). *Happiness Management*: a culture to explore from brand orientation as a sign of responsible and sustainable production. *Frontiers in Psychology, 12*, 727845. https://doi.org/10.3389/fpsyg.2021.727845

Ravina-Ripoll, R., Romero-Rodríguez, L.M. and Ahumada-Tello, E. (2022). Workplace happiness as a trinomial of organizational climate, academic satisfaction and organizational engagement. *Corporate Governance*, *22*(3), 474-490. https://doi.org/10.1108/CG-12-2020-0532

Ríos, J. I., y Loli, A. E. (2019). Justicia organizacional y compromiso organizacional en trabajadores del sector minero en Perú. *Revista de Investigación en Psicología, 22*(1), 127-138. http://dx.doi.org/10.15381/rinvp.v22i1.16586

Rizqi, A. H. and Qamari, I. N. (2022). The influence analysis of organizational climate and work-life balance on employee performance through happiness at work as mediation variable. *Journal of Management and Islamic Finance*, *2*(2), 153-170. https://doi.org/10.22515/jmif.v2i2.5722

Rogowska, A. M. and Meres, H. (2022). The mediating role of job satisfaction in the relationship between emotional intelligence and life satisfaction among teachers during the COVID-19 pandemic. *European Journal of Investigation in Health, Psychology and Education*, *12*(7), 666-676. https://doi.org/10.3390/ejihpe12070050

Roy-García, I., Rivas-Ruiz, R., Pérez-Rodríguez, M. and Palacios-Cruz, L. (2019). Correlación: no toda correlación implica causalidad. *Revista Alergia México, 66*(3), 354-360. https://doi.org/10.29262/ram.v66i3.651

Saeed, B., Tasmin, R., Mahmood, A. and Hafeez, A. (2021). Development of a multi-item Operational Excellence scale: Exploratory and confirmatory factor analysis. *The TQM Journal*. https://doi.org/10.1108/tqm-10-2020-0227

Sheeraz, M. I., Ungku Ahmad, U. N., Ishaq, M. I., Sarfraz, M., Md. Nor K., (2021). The research on organizational justice in scopus indexed journals: a bibliometric analysis of seven decades. *Frontiers in Psychology*. *12*, 647845. https://doi.org/10.3389/fpsyg.2021.647845

Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics, 9*(1), 4-11. https://doi.org/10.12691/ajams-9-1-2

Sudibjo, N. and Sutarji, T. (2020). The roles of job satisfaction, well-being, and emotional intelligence in enhancing the teachers' employee engagements. *Management Science Letters, 10*(11), 2477-2482. https://doi.org/10.5267/j.msl.2020.4.002

Thakkar, J. J. (2020). Structural equation modelling. In *Studies in systems, decision and control*. https://doi.org/10.1007/978-981-15-3793-6

Van Waeyenberg, T., Peccei, R. and Decramer, A. (2022). Performance management and teacher performance: the role of affective organizational commitment and exhaustion. *The International Journal of Human Resource Management, 33*(4), 623-646. https://doi.org/10.1080/09585192.2020.1754881

Veray-Alicea, J. (2016). *Escala de Satisfacción Laboral (ESL).* https://bit.ly/3z97xae

Yap, B. W. and Sim, C. H. (2011). Comparisons of various types of normality tests. *Journal of Statistical Computation and Simulation, 81*(12), 2141-2155. https://doi.org/10.1080/00949655.2010.520163

Yavuz, M. (2010). The effects of teachers' perception of organizational justice and culture on organizational commitment. *African Journal of Business Management, 4*(5), 695.

Zhang, H. and Wu, Z. (2022). The Generalized Fisher's Combination and Accurate P-Value Calculation under Dependence. *Biometrics, 79*(2), 1159-1172. https://doi.org/10.1111/biom.13634

Zheng, X., Shi, X. and Liu, Y. (2020). Leading teachers' emotions like parents: Relationships between paternalistic leadership, emotional labor and teacher commitment in China. *Frontiers in Psychology, 11*, 519. https://doi.org/10.3389/fpsyg.2020.00519

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

october 2024-march 2025
pp. 199-215
https://doi.org/10.17163/ret.n28.2024.02

Engagement and job satisfaction: evidence in the Peruvian commercial sector

Compromiso con la tarea y satisfacción laboral: evidencia en el sector comercial peruano

Pilar Esperanza García-Tamariz
Professor at Universidad de Piura, Lima, Peru
pilar.garcia@udep.edu.pe
https://orcid.org/0000-0003-2020-7773

Macarena Ayleen Mansilla-Mahmud
Researcher at Universidad de Piura, Lima, Peru
macarena.mansilla.m@udep.edu.pe
https://orcid.org/0000-0003-4345-6254

Ricardo Mateo-Dueñas
Professor at Universidad de Navarra, Pamplona, Spain
rmateo@unav.es
https://orcid.org/0000-0001-6772-8002

Received on: 17/01/24 **Revised on:** 04/06/24 **Approved on:** 19/08/24 **Published on:** 01/10/24

Abstract: the aim of this research is to explore the components of engagement that are most significant to the job satisfaction of employees in Peru's commercial sector. Questionnaires were distributed online and printed to employees from 25 businesses operating within Lima's commercial sectors. Following an exhaustive literature review, the Utrecht Work Engagement Scale (UWES) was chosen as the survey instrument, resulting in the collection of 260 responses. The participating companies were required to be part of the private sector, and the research adopted a cross-sectional design. The survey was administered free of charge, ensuring complete anonymity for the respondents. The study employed an ordinary least squares model as the instrument, incorporating a quadratic variable for age. The model's results provided the necessary support to demonstrate a close relationship between the engagement variables of challenge ($\beta = 0.0147$, $p < 0.05$), inspiration ($\beta = 0.0224$, $p < 0.01$), flow state ($\beta = 0.0156$, $p < 0.05$), and job satisfaction among commercial employees. Additionally, these variables were graphically analyzed according to the workers' age. A quadratic trend is specifically observed in the relationship between job satisfaction and age. Our findings contribute to the literature by offering a unique perspective on engagement studies, providing valuable insights for the development of improved human management policies.

Keywords: challenge, commercial workers, engagement, inspiration, job satisfaction, organizational behavior, flow.

Resumen: el objetivo principal de este estudio fue investigar cuáles son los componentes del compromiso con la tarea más relevantes para la satisfacción laboral de los empleados pertenecientes al sector comercial en Perú. Se distribuyeron cuestionarios en línea y en formato impreso a empleados de 25 empresas que operan en los sectores comerciales de Lima. La Escala de Compromiso Laboral de Utrecht (UWES) fue seleccionada como instrumento de encuesta después de una exhaustiva revisión de la literatura, lo que resultó en la recopilación de 260 encuestas. Se establecieron criterios específicos para la participación de empresas, exigiendo que pertenecieran al sector privado, y la investigación adoptó un diseño transversal. Es importante destacar que la encuesta se administró de forma gratuita, garantizando completa anonimidad para los encuestados. El instrumento utilizado en este estudio fue un modelo de mínimos cuadrados ordinarios, incorporando una variable cuadrática para la edad. Los resultados de este modelo brindaron el respaldo necesario para demostrar una estrecha relación entre las variables de compromiso, como el desafío ($\beta = 0.0147$, $p < 0.05$), la inspiración ($\beta = 0.0224$, $p < 0.01$), el flow o la inmersión en el trabajo ($\beta = 0.0156$, $p < 0.05$) y la satisfacción laboral en empleados comerciales. Además, estas variables fueron analizadas gráficamente según la edad de los trabajadores, observándose una tendencia cuadrática específicamente en la relación entre la satisfacción laboral y la edad. Los hallazgos contribuyen a la literatura al presentar una perspectiva diferente sobre el estudio del compromiso, proporcionando valiosos conocimientos para la formulación de políticas de gestión humana más efectivas.

Palabras claves: desafío, trabajadores comerciales, compromiso con la tarea, inspiración, satisfacción laboral, comportamiento organizacional, flow.

Suggested citation: García-Tamariz, P.E., Mansilla-Mahmud, M.A. and Mateo-Dueñas, R. (2024). Engagement and job satisfaction: evidence in the Peruvian commercial sector. *Retos Revista de Ciencias de la Administración y Economía*, *14*(28), 199-215. https://doi.org/10.17163/ret.n28.2024.02

Introduction and state-of-the-art

Engagement and job satisfaction are two fundamental concepts in the literature on organizational behavior and human resources. Engagement, as defined by Schaufeli *et al.* (2002), is conceptualized as a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption. Vigor implies high levels of energy and mental resilience while working, as well as the willingness to invest effort in work tasks and to persist despite difficulties (Bakker *et al.*, 2008). Dedication refers to being strongly involved in one's work, accompanied by feelings of significance, enthusiasm, inspiration, pride, and challenge (Macey and Schneider, 2008). Absorption, on the other hand, is described as a state of full concentration and deep enjoyment at work, where time seems to pass quickly (Csikszentmihalyi, 1975).

Job satisfaction, defined by Locke (1976), is a positive or pleasurable attitude resulting from the perception of one's job as fulfilling. It is a multidimensional construct that includes factors such as satisfaction with supervision, promotion opportunities, working conditions, relationships with coworkers, and the content of the work itself (Judge *et al.*, 2001). The literature has consistently demonstrated that job satisfaction is related to multiple organizational outcomes, including productivity, turnover, and organizational commitment (Judge and Klinger, 2008).

In the Peruvian context, these dynamics take on particular relevance. Peru, with its emerging economy and constantly evolving labor market, presents a unique scenario for studying engagement and job satisfaction. The commercial sector, one of the most dynamic in the country, is especially relevant given its impact on economic growth and job creation (Instituto Nacional de Estadística e Informática, 2023). Understanding how employees in this sector experience and manage their engagement and satisfaction can offer valuable insights for human resource management and organizational development in Peru.

This study focuses on analyzing the components of engagement that are most relevant to job satisfaction among employees in the Peruvian commercial sector. Specifically, it seeks to answer the following research questions: Which elements of engagement (vigor, dedication, and absorption) have the greatest impact on job satisfaction? How does job satisfaction vary with the age of employees in the commercial sector? These questions are crucial for developing effective talent management strategies that enhance employee well-being and performance in this specific economic and cultural context.

The document is systematically organized to explore the relationship between job satisfaction and engagement. Following the literature review, the objectives section establishes the study's purpose and specific goals. The methodology section details the research approach, including data collection and measurement, and the use of Ordinary Least Squares (OLS) Analysis. The results section presents the findings from the data analysis, highlighting the identified relationships between job satisfaction and engagement. Finally, the conclusion summarizes the key results and their implications, offering reflections and guidance for future research.

Engagement

Engagement, as described by Schaufeli *et al.* (2002), is a sustained and impactful positive mental state related to work. This state is characterized by enthusiasm, commitment, and complete absorption, and it is not confined to any specific moment, object, event, person, or action. The first component, vigor, includes behavioral and energetic elements, implying high levels of energy, mental resilience, willingness to invest effort, and perseverance in challenging situations (Gonzalez-Romá *et al.*, 2006; Le Blanc *et al.*, 2021).

Next, dedication involves a strong motivation to work and feelings of being valued, enthusiastic, inspired, proud, and challenged (Madero-Gómez *et al.*, 2021). It manifests in the centrality and importance of work to the individual, along with high levels of enthusiasm, inspiration, and pride. Absorption is defined by complete focus and satisfaction in one's job, effectiveness in task completion, and the sensation that time passes quickly (Salanova *et al.*, 2000; Shimazu and Schaufeli, 2009; Watanabe *et al.*, 2023). This component is

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

marked by an intense focus and commitment to work, making it difficult to disengage and causing a perception that time flies (Schaufeli and Taris, 2005). It is a cognitive state where the individual achieves deep concentration, potentially losing track of time due to satisfaction and focus during the workday (Llorens *et al.*, 2010).

This sense of intense concentration is also referred to as "flow" by Csikszentmihalyi (1975), who describes it as a comprehensive feeling experienced when individuals engage with complete dedication. Flow is characterized as a state of working at one's highest capability with strong commitment and ease, where personal abilities align perfectly with the challenges presented (Nakamura and Csikszentmihalyi, 2009). It is considered an "optimal experience," with these terms often used interchangeably.

Job satisfaction

The definition of job satisfaction has varied over time, but generally, it refers to the extent to which an individual finds their job enjoyable (Spector, 1997). It has been conceptualized as an assessment of one's work, involving cognitive aspects as well as emotional responses or overall attitudes toward work (Brief, 1998; Spector, 1997). According to Weiss (2002), job satisfaction is essentially an attitude, and his research differentiate between cognitive aspects, such as emotions, beliefs, and behaviors. He argues that previous measures of job satisfaction have often conflated job perception, which is cognitive, with job satisfaction, which is an emotional assessment.

Hamermesh (2001) conducted research on the influence of job satisfaction in both the United States and Germany, finding that job satisfaction tended to be higher among individuals with higher income levels. These studies have spurred numerous further inquiries into the relationship between wages and job satisfaction.

Recognizing the significance of job satisfaction, efforts have been made to develop workplace policies aimed at enhancing it. For instance, Ellickson and Logsdon (2002) have created policies that consider numerous factors contributing to job satisfaction, categorizing them into two main domains: environmental background and personal characteristics. Environmental background factors include advancement prospects, compensation, fringe benefits, effective team collaboration and resources, the physical work environment, safety measures, appropriate training, equitable workload distribution, positive relationships with immediate supervisors, performance assessments, and interpersonal connections. Personal characteristics pertain to attributes such as gender and age.

Another approach to job satisfaction is through the concept of happiness at work. This concept has various definitions, making it challenging to define precisely due to its many facets (Zelenski *et al.*, 2008). It is usually defined as the experience of positive emotions (Tkach and Lyubomirsky, 2006; Foncubierta-Rodríguez and Sánchez-Montero, 2019; Roth *et al.*, 2023). The most prominent definition of happiness at work comes from Fisher (2010), who articulates it on three distinct levels. At the transitory level, it involves immediate and fleeting experiences of joy and contentment stemming from work events, as well as the emotions and mood an individual may experience as a result. At the personal level, it focuses on specific aspects of individuals in their work environment, including their levels of engagement, the presence of humor, overall well-being, and positive emotions. Lastly, at the group level, happiness at work is characterized as a collective phenomenon, encompassing team morale, the emotional atmosphere within the group, the presence of humor, collective engagement, and group satisfaction.

Relationship between job satisfaction and engagement

Engagement in the workplace, as highlighted by Saks (2006) using Social Exchange Theory, is positively correlated with the amount of time employees spend at work. In contrast, job satisfaction, as noted by Macklin *et al.* (2006) through the Job Demands-Resources Model, tends to decrease as the hours spent on the job increase. This suggests that high job demands can enhance engagement if they do not become overwhelming. Conversely, elevated job demands often lead to decreased job satisfaction.

In the literature, it is evident that engaged employees often feel challenged, inspired, and proud in their roles. This emotional state is the result of the interplay between employee engagement and job satisfaction. Karanika-Murray *et al.* (2015), drawing on the Conservation of Resources Theory, found that those who are deeply engaged in their work, seeking energy and dedication, tend to experience satisfaction in their professional endeavours. On the other hand, Britt *et al.* (2005), using the Theory of Job Stress, discovered that employees with a strong commitment to their work and organizations may be adversely affected by negative workplace events, resulting in increased work-related stress.

In a study conducted by Yeh (2013) involving 336 hotel employees from 22 hotels in Taiwan, the relationship between tourism involvement, engagement, and job satisfaction was investigated through the lens of the Engagement Theory. andeh (2013) found a significant and positive connection between job satisfaction and engagement.

In that sense, it is important to consider the leadership style and type, especially transformational leadership (Donkor *et al.,* 2022), as it impacts the relationship between job satisfaction and engagement, based on the Full Range Leadership Theory (Swid, 2016). Additionally, understanding the employee life cycle, framed by the Lifespan Development Theory, is crucial to identifying their specific needs based on age and other factors (Sandhya and Sulphey, 2019).

Materials and methods

There are several studies that analyses the relationship between engagement and job satisfaction. While numerous studies have delved into the overall correlation, a notable gap in the existing literature pertains to the examination of various facets of engagement within the commercial sector, with a particular emphasis on age-related factors.

This represents a critical void in our understanding of employee well-being, as age can significantly influence individuals' perspectives, expectations, and preferences in the workplace.

By bridging this gap and investigating the nuances of engagement, we can gain deeper insights into the specific factors that contribute to job satisfaction within different demographic segments. This knowledge is not only crucial for academic purposes but also holds practical implications for organizations aiming to tailor their engagement strategies to the diverse needs of their workforce. For this reason, that is why the following objectives are:

- Find out which components of engagement (vigor, dedication and absorption) are most relevant in commercial employees' job satisfaction.
- To find out, if as people age, their job satisfaction changes in a way that isn't necessarily constant but might experience both: growth and decline.

Based on these objectives, the hypotheses for the study are as stated below:

H1: There is a positive and significant relationship between vigor, dedication, and absorption in job satisfaction among commercial employees.

H2: Job satisfaction varies significantly according to the age of employees in the commercial sector.

To validate these hypotheses, a data collection process is undertaken, as outlined below. This includes the measurement of variables and the application of the Ordinary Least Squares (OLS) model.

Data collection

The present study is carried out in Peru, a country characterized by its rich cultural diversity and emerging economy. With a population exceeding 33 million inhabitants, Peru stands out for its sustained economic growth in recent decades, with the commercial sector being one of the fundamental pillars of its economy (Economic Activity, 2022). Furthermore, the commercial sector in Peru represents approximately 5.42 % of the country's Gross Domestic Product (GDP), reflecting its importance

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

in job creation and contribution to economic development (Instituto Nacional de Estadística e Informática, 2023). The city of Lima, the capital of the country, is the main commercial and financial center, concentrating most of the companies participating in this study (Coloma, 2020).

Understanding the dynamics of engagement and job satisfaction in this specific context not only provides valuable insights for human resource management but also offers practical insights for designing organizational policies that promote a more productive and satisfying work environment in the Peruvian commercial sector.

Considering this context and in order to validate the hypotheses, a questionnaire was designed to gather the necessary information to understand the relationships between the variables and subsequently find statistical support to demonstrate the proposed relationships.

Regarding the section on engagement, an adaptation of the questionnaire from the Utrecht Work Engagement Scale (UWES) was used, which has been validated by previous studies (Nunnally and Bernstein, 1994; Salanova *et al.*, 2000). This questionnaire includes items corresponding to three categories: vigor, dedication, and absorption, resulting in a total of ten questions (Schaufeli *et al.*, 2006). Some representative questions were selected for this study, measured using a Likert scale from 1 to 6, where 0 means "never" and 6 means "always". The questions used are as follows:

1. I am strong and vigorous at my job.
2. I can continue working for long periods of time.
3. Even when things do not go well, I continue working.
4. My job is full of meaning and purpose.
5. My job inspires me.
6. I am proud of the work that I do.
7. My job is challenging.
8. Time flies when I am working.
9. When I am working, I forget everything else around me.
10. I am happy when I am immersed in my work.

To measure job satisfaction, the survey from the study by Macdonald and MacIntyre (1997) was chosen, which validates a questionnaire specifically based on measuring reactions to job characteristics. This model is very versatile, brief, and generic, and can be applied to a wide range of occupational groups. The survey was distributed across different hierarchical levels and included the following questions, measured using a Likert scale from 1 to 6, where 0 means "never" and 6 means "always":

1. I consider the salary to be good.
2. I receive recognition when I do a good job.
3. I g*et al*ong well with my colleagues.
4. I have job security for the long term.
5. I g*et al*ong well with my supervisor (answer if applicable).
6. My talents and skills are used at work.
7. I have the opportunity to advance within the organization.
8. Overall, I believe the job is good for my physical health.
9. I feel good about my job.

Once the survey was structured, the proposed format was sent to academic professionals; four from the University of Piura and one from the University of Navarra. Additionally, to test the comprehension of the questions, surveys were distributed to various workers with the sought-after profile related to sales and administrative roles. As a result of these validations, corrections were made to the scale, format, and wording style of the questions.

Several invitations were sent to commercial companies in order to participate in this study. Representative commercial companies that showed a willingness to participate in the study aimed to study various hierarchical levels. Questionnaires were distributed online and printed to workers from 25 businesses operating in Lima's commercial sectors, soliciting their participation in the research project.

Prior to data collection, specific criteria were established. These criteria stipulated that the participating companies should belong to the private sector, and the study adopted a cross-sectional design. It is important to note that the survey was administered free of charge and guaranteed complete anonymity to the respondents.

Measurement of variables

In terms of variable measurement, the information was computed in Stata 15. The independent variables in our model correspond to the components of job satisfaction as outlined in the survey utilized for this research. Each of these variables was collected using a Likert scale, although it's important to note that the scales were not uniform across all variables.

It is worth underscoring that the index mentioned earlier was formulated in such a way that it represents a percentage derived from the sum of responses relative to the maximum attainable score. This index considers the number of survey questions answered, as the maximum achievable value is contingent upon the total number of questions addressed.

Furthermore, we made the decision to incorporate control variables into our analysis. These include Gender (coded as 1 for male and 0 for female), Age, Marital Status (with a value of 1 denoting married and 0 denoting otherwise), Children (a binary variable with 1 indicating the presence of children and 0 indicating their absence), Education level, Type of Employment Contract, Tenure within the organization, and a constant term. These control variables were introduced to help mitigate potential influences on the research findings.

The central variables of the research are job satisfaction as the dependent variable and some statements taken from the UWES engagement survey. To analyze the relationships between these variables, job satisfaction was defined, and the index was constructed with the following equation:

Job satisfaction index

$$\text{Job satisfaction index} = \frac{\sum_{i=1}^{9} S_i}{4(9 - N_1)}$$

Where:

S_i : variables that contain job satisfaction.

N_1: number of unanswered questions in the job satisfaction section.

To validate the survey, a concise examination of the psychometric characteristics of the instruments was conducted. This involved assessing the survey's consistency and reliability. It's noteworthy that there was a complete absence of missing data in any of the surveys, resulting in 100,00% data completeness.

For the reliability assessment, we applied Cronbach's alpha statistic (as shown in Table 1), which provides a measure of reliability for variables associated with a specific construct. In the case of the job satisfaction index, an impressive Cronbach's alpha value of 0.894 was achieved. This indicates a high degree of reliability and internal consistency within the scale.

Table 1

Reliability statistics on job satisfaction and job commitment

Alfa de Cronbach	Cronbach's alpha considering each item	Number of items
0,894	0,805	9
0,917	0,868	10

Ordinary least squares

For the regression, it was decided to use the ordinary least squares model with a quadratic variable, age. The main form of each regression to be estimated is presented below:

$$\text{Job satisfaction}_i =$$

$$\beta_0 + \beta_2 \Pi + \beta_2 \Upsilon + \beta 3 \text{Age}_i + \beta_4 \text{Age}_i^2 + \varepsilon$$

Where:

- Job satisfaction$_i$: is the job satisfaction index.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

- Π: it is a vector that represents the variables that composes worker's engagement. Among them, there are: strong and vigorous at work, works for long periods, works when things go wrong, work is significant, work inspires the worker, the worker is proud of his/her work, work is challenging, time flies while working, forgets everything, happy and absorbed work (flow).
- ϒ: it is a vector that represents the control variables of the model, which are time of service in months, marital status, and whether they have children.
- Age_i^2: is the age of the employee.
- Age_i: is the employee's age squared.
- β_0: intercept of the equation.
- ε: regression error.

Results and discussion

The descriptive statistics have been computed, focusing on key variables. Table 2 shows a wide range of ages among the participants, giving us insights into the diversity of employee ages. Both age and years of service show a broad range of responses, indicating a variety of experiences and lengths of employment among the workforce. It is important to note that 43,00% of the sample are women and 57,00% are men. This variability highlights the complexity of the workforce and the need to understand employees' perspectives and contributions in detail.

Table 2

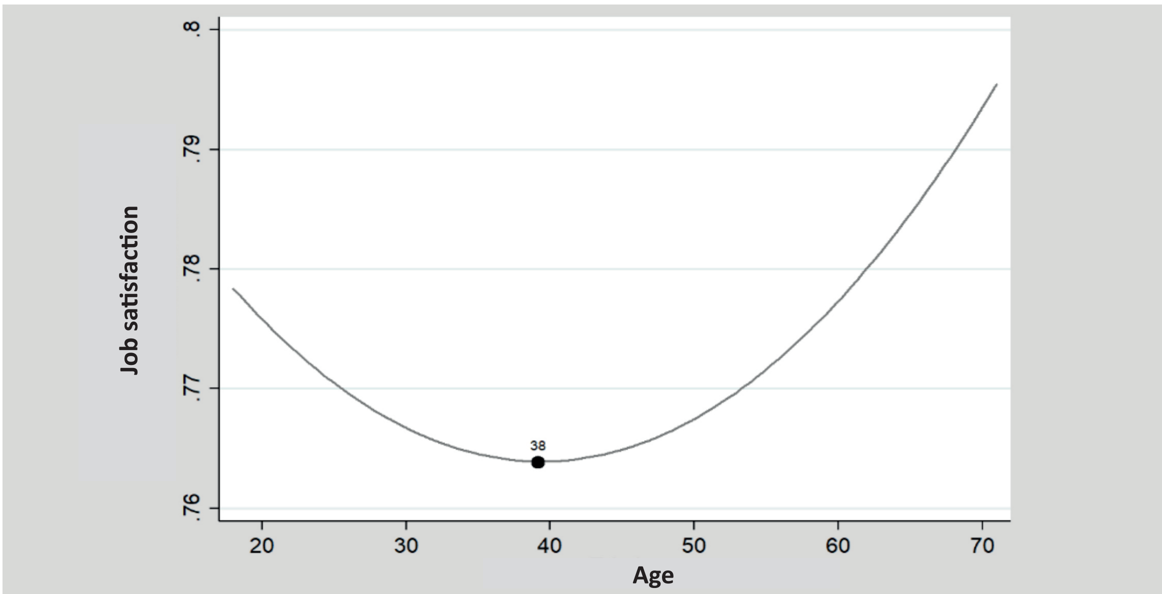
Overview of the main variables

Variable	Mean	N	Min	Max	Standard deviation	Variance
Job satisfaction	0.78	260	0.28	1	0.11	0.01
Age	32.68	257	18	71	9.38	88.01
Years of Education	15.94	256	2.5	29	3.85	14.83
Time of service (in months)	80.5	260	0.02	370.5	4.98	24.82
Strong and vigorous at work	4.69	260	3	6	0.12	0.02
Works for long periods	4.74	260	3	6	0.11	0.01
Works when things go wrong	4.61	260	3	6	0.10	0.03
Work is significant	4.45	260	3	5	0.09	0.04
Work inspires the worker	4.52	260	3	4	0.16	0.01
The worker is proud of his/her work	4.64	260	3	6	0.19	0.03
Work is challenging	4.76	260	3	5	0.10	0.02
Time flies while working	4.64	260	3	6	0.17	0.02
Forgets everything while working	4.47	260	3	6	0.12	0.05
Happy when is absorbed at work (flow)	4.52	260	3	5	0.11	0.01

Figure 1 illustrates the quadratic trend observed in the data on job satisfaction. A notable inflection point appears at the age of 38, where job satisfaction declines from ages 18 to 38, and then shows an upward trajectory beyond 38.

Figure 1

Job satisfaction quadratic trend



To address potential multicollinearity among the model's explanatory variables, a thorough correlation matrix analysis was conducted. The results, shown in Table 3, indicate that no correlation exceeds the threshold of 0.5. This lack of strong correlations alleviates concerns about multicollinearity, ensuring the reliability of the model's variable relationships and reinforcing the robustness of our analytical approach.

Table 3

Correlation matrix

#	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Strong and vigorous at work	1																
2	Works for long periods	0.49	1															
3	Works when things go wrong	0.45	0.56	1														
4	Work is significant	0.42	0.40	0.40	1													
5	Work inspires the worker	0.39	0.36	0.30	0.40	1												
6	The worker is proud of his/her work	0.41	0.28	0.31	0.49	0.42	1											
7	Work is challenging	0.33	0.27	0.26	0.45	0.40	0.40	1										
8	Time flies while working	0.24	0.31	0.17	0.33	0.35	0.37	0.34	1									
9	Forgets everything while working	0.08	0.16	0.08	0.11	0.12	0.08	0.19	0.36	1								

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

#	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
10	Flow at work	0.35	0.33	0.24	0.35	0.41	0.42	0.36	0.32	0.31	1							
11	Sex	0.06	-0.03	-0.13	-0.06	-0.06	0.01	0.07	-0.06	-0.01	0.00	1						
12	Age	0.11	0.06	0.01	0.11	0.13	0.14	0.09	0.10	0.04	0.20	0.16	1					
13	Service time	-0.03	-0.05	-0.04	0.03	0.03	0.08	0.07	0.04	0.03	0.11	0.24	0.55	1				
14	Marital Status	0.15	0.06	0.03	0.11	0.12	0.07	0.06	0.07	-0.04	0.09	0.16	0.50	0.25	1			
15	Has kids	0.20	0.14	0.09	0.05	0.09	0.11	0.07	0.04	-0.01	0.14	0.13	0.39	0.24	0.37	1		
16	Years of education	0.08	0.08	0.09	0.11	0.16	0.00	0.09	0.08	-0.02	0.07	-0.21%	0.03	-0.11	0.10	-0.07	1	
17	Type of contract	0.05	0.02	0.02	0.13	0.15	0.11	0.14	0.06	0.02	0.05	0.01	0.18	0.29	0.17	0.07	0.08	1

The regression results, detailed in Table 4, illuminate the factors influencing job satisfaction. Notebly, within the dedication variable, both inspiration at work and engaging tasks emerge as significant contributors to heightened job satisfaction, as evidenced by their positive coefficients. This indicates that an increase in these components correlates with an increase in job satisfaction. Therefore, the first hypothesis is partially rejected, as not all variables within each component (dedication, absorption, vigor) were significant.

An intriguing finding in the absorption category highlights the significance of feeling 'happy and absorbed at work (flow)', indicating a positive impact on job satisfaction.

When considering age as a control variable, a significant concave quadratic trend is observed. This suggests an inflection point where job satisfaction initially rises with age but begins to decline beyond a certain age. Thus, hypothesis 2 is not rejected, as there is a significant quadratic relationship among employees in the commercial sector studied.

Additionally, the variable related to having children shows significance with a negative coefficient. This suggests that having children is associated with a decrease in job satisfaction, possibly due to the time demands imposed by childcare responsibilities.

Table 4

Regression of engagement variables and job satisfaction

	Job satisfaction
Vigor	
Strong and vigorous at work	-0.00801
	(0.282)
Works for long periods	0.0107
	(0.163)
Works when things go wrong	0.00054
	(0.943)
Dedication	
Work is significant	0.00475
	(0.585)
Work inspires the worker	0.0224**
	(0.008)
The worker is proud of his/her work	0.00764
	(0.364)
Work is challenging	0.0147*
	(0.024)
Absorption	
Time flies while working	0.00976

	Job satisfaction
	(0.138)
Forgets everything while working	-0.000706
	(0.882)
Happy when is absorbed at work (flow)	0.0156*
	(0.022)
Sex (1=Female)	0.0185
	(0.068)
Age	0.0210**
	(0,003)
Age²	-0,0320*
	(0,017)
Service time	-0,000531
	(0,186)
Marital status	0,017
	(0,156)
Has children (1=Yes)	-0,00694**
	(0,009)
Years of education	0,000177
	(0,992)
Type of contract	0,0167
	(0,519)
Constant	0,421***
	(0.000)
N	260
R^2	0,308
F (22.437)	28,67
Prob > F	0,037

Parenthesized
t* p < 0.05, ** p < 0.01, *** p < 0.001

Based on our key findings, we conducted a comprehensive graphical analysis of the relevant variables in relation to age. The objective is to gain a deeper understanding of how these factors evolve over time. It starts by focusing on the variable related to workplace inspiration (Figure 2). The results indicated a clear upward trend, suggesting a positive correlation with age. Over the observed years, inspiration levels significantly increased within our study group.

This result aligns with previous research by Thrash and Elliot (2004), who emphasize the importance of understanding tasks in inspiring motivation. Additionally, our observations suggest that with experience and time, individuals become more dedicated to their tasks, motivated by their functional aspects and potentially also by the company's values, design, participation, and leadership style.

The data reveals a significant relationship between age and the perception of one's job as challenging. Figure 3 illustrates the trend of this variable across the age groups studied. The graph demonstrates that this perception increases with age, becoming more pronounced from the age of 28 onwards and continuing to rise. This pattern suggests that while early career stages may present greater obstacles, as individuals overcome these challenges and gain experience, they develop confidence in their abilities. Drawing from Gutiérrez Zarza's (2015) findings, we can infer that this trend may be attributable to increased autonomy in task execution and supportive supervision, which enables employees to effectively utilize their skills.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Figure 2
Relationship between age and work inspiration

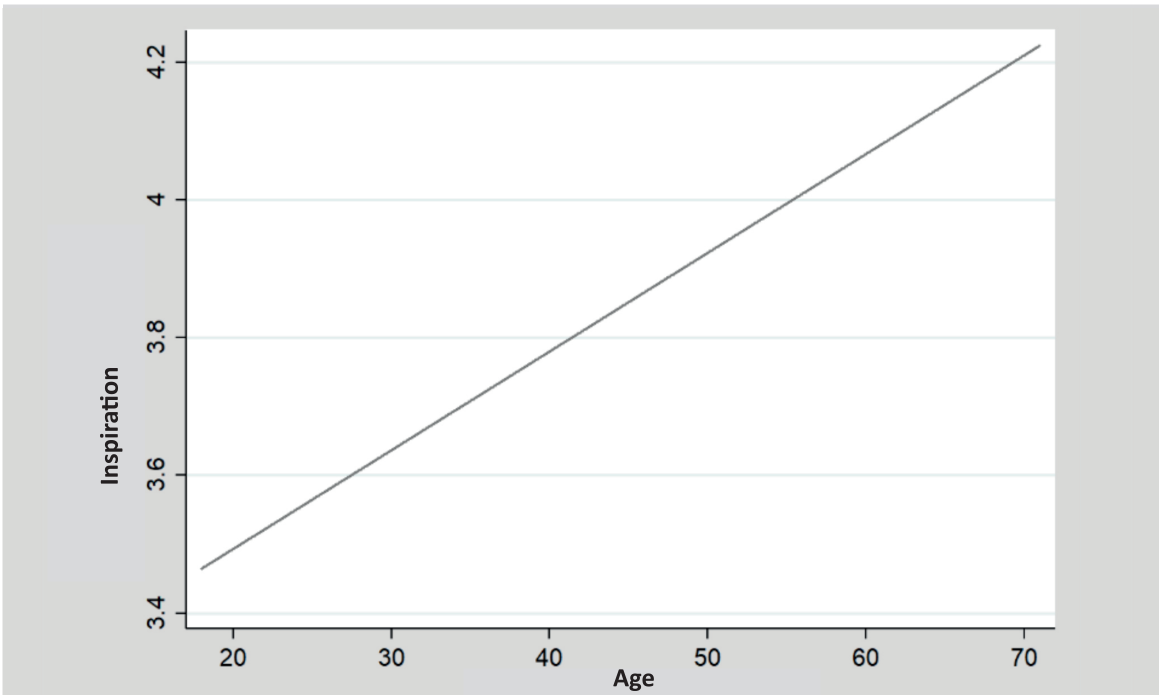
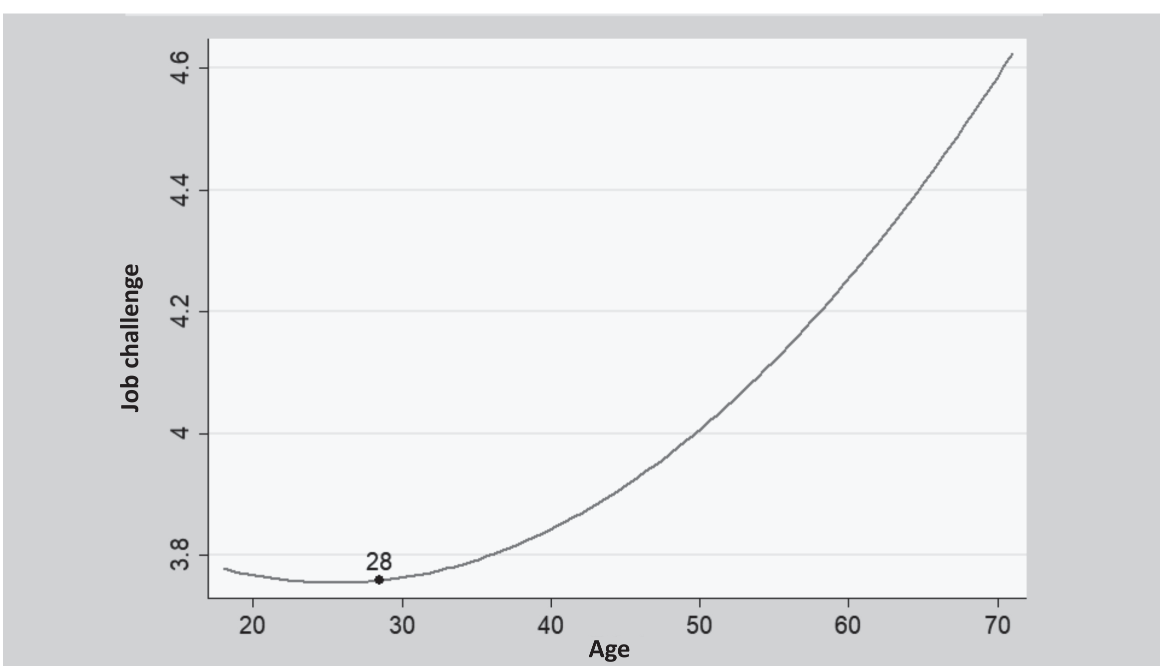


Figure 3
Relationship between age and job challenge



This study also delves into the concept of workplace happiness as it relates to the state of flow or absorption experienced by employees. Investigating how this sentiment varies across different age cohorts offers insights into prevalent trends. Llorens *et al.* (2010) found a robust link between work-related absorption and positive psychological capital, encompassing job satisfaction and engagement. The key to this relationship lies in the reduced stress levels associated with absorption, enabling employees to maintain vitality in their roles.

Figure 4 illustrates the progression of workplace absorption across age brackets. The trend appears to be relatively linear among individuals aged 18 to 30, after which it demonstrates a marked increase. This pattern may be attributable to the heightened pressures faced by younger employees who are new to the workforce, as they strive to meet performance expectations and secure career advancement opportunities.

After performing the main regression analysis, the Variance Inflation Factor (VIF) test was performed to evaluate the multicollinearity among the independent variables. The VIF test is a widely used technique to identify problematic intercorrelations in regression models (Belsley, 1991; Montgomery *et al.*, 2012). As shown in Table 5, all VIF values were less than 10, indicating the absence of severe multicollinearity. These low VIF values suggest that the variance of regression coefficients is not substantially high due to the intercorrelations between the predictors. This finding reinforces the reliability of the regression model and confirms the independence of the included variables, aligning with the guidelines provided in the literature.

Figure 4

Relationship between age and state of flow at work

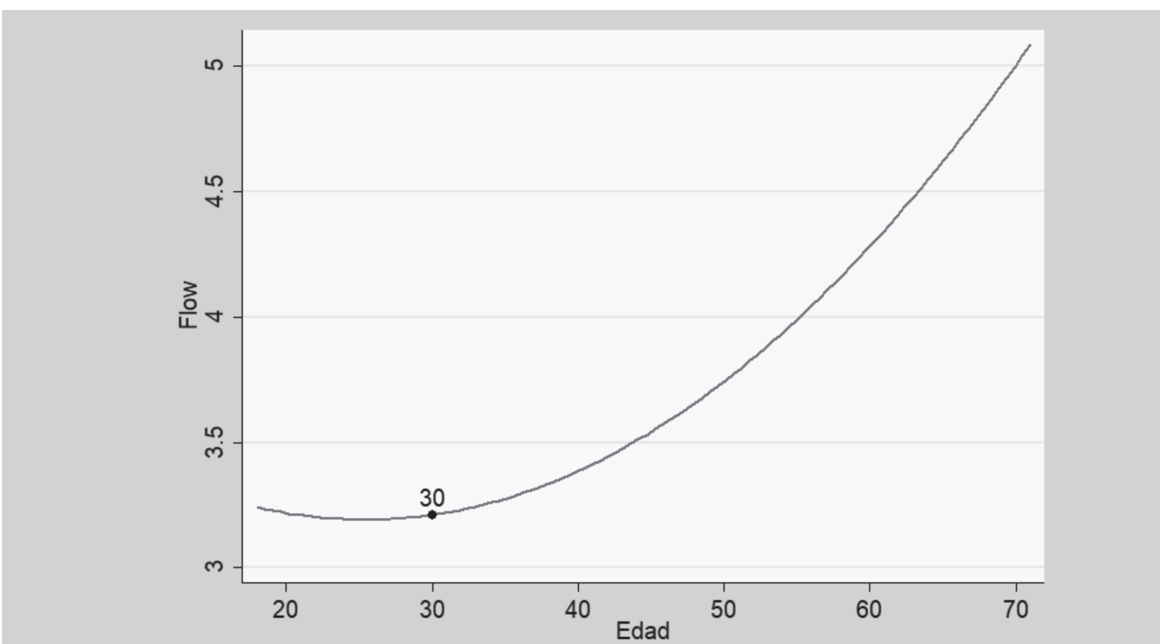


Table 5

Regressions of the variables of commitment and job satisfaction

Variable	VIF	1/VIF
Strong and vigorous at work	1.67	0.598024
Works for long periods	1.81	0.552179
Works when things go wrong	1.7	0.588646
Work is significant	2.36	0.424108

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Variable	VIF	1/VIF
Work inspires the worker	2.56	0.390293
The worker is proud of his/her work	2.27	0.440053
Work is challenging	1.99	0.502875
Time flies while working	1.47	0.680059
Forgets everything while working	1.3	0.770285
Happy when is absorbed at work (flow)	1.54	0.647682
Sex	1.34	0.743849
Age	1.32	0.194875
Age2	7.96	0.208531
Service time	1.69	0.591736
Marital status	1.5	0.667344
Has children	1.35	0.743342
Years of education	1.38	0.723781
Type of contract	6,075	0.164737
Mean VIF	**2.293611111**	

Conclusions

The aim of this study was to investigate the relationship between the components of engagement and job satisfaction among employees of commercial companies in Peru. Previous research has demonstrated that engagement influences job satisfaction, and when analyzing each variable of it, the significant results are dedication and absorption, specifically inspiration, challenge, and flow at work.

The nature of job satisfaction involves some degree of endogeneity, potentially generating bias effects due to reverse causality and omitted variables. In this research, we have incorporated measures to mitigate concerns related to this issue, such as the addition of control variables and the decomposition of the engagement variables according to Schaufeli *et al.* (2002).

Furthermore, some studies have corroborated our findings, specifically Straume and Vitterso (2012), who have provided evidence suggesting that the connection between work and inspiration is more robust than the challenges encountered in the workplace. They argue that when an employee is inspired, it not only leads to job satisfaction but also equips them to overcome the difficulties that may arise while addressing work-related issues. This suggests that companies should foster inspiration in their employees to enhance both their satisfaction and their ability to tackle challenges.

This is particularly important for employees in commercial companies who strive to meet their sales targets. Our research results affirm that inspiration is the most significant aspect related to job satisfaction.

Another significant aspect of engagement is the challenge; according to Zarza (2013), this variable at a moderate level contributes to job satisfaction when there is freedom in the task and feedback from superiors. This is crucial because employees can utilize and demonstrate their skills.

Moreover, Llorens (2009) demonstrates a strong relationship between absorption in work and positive psychological capital, which includes job satisfaction and commitment. This absorption, manifested as flow, provides low levels of stress, allowing employees to remain energized at work.

These findings highlight the importance of the manager's role in driving commitment and job satisfaction. According to Robbins and Finley (2004), leaders must inspire and motivate their collaborators to achieve inspiration and engagement. Swid (2016) further adds that leadership style directly affects job satisfaction through effective participation and communication.

Based on the results obtained in this research, the profile of a transformative leader emerges as a key driver of engagement by fostering open, transparent, and motivational communication among collaborators, exerting an inspiring effect.

Similarly, the transformative leader invests time in understanding employees at both personal and professional levels, addressing not only organizational goals but also the individual aspirations and challenges of each team member. This approach not only promotes alignment with organizational objectives but also establishes a personal connection with individual goals and aspirations (Reynoso and Arbaiza, 2023).

These leadership traits significantly contribute to workplace immersion, establishing conducive conditions for the state of flow and, ultimately, yielding a positive impact on job satisfaction. Therefore, companies should promote this leadership style to improve the work environment and employee engagement.

The study revealed diversity in age ranges and variability in job satisfaction across different stages of professional development. A decrease in job satisfaction is observed between the ages of 18 and 38. Highlighting the importance of companies being aware of this reality, Sandhya and Sulphey (2019) suggest that organizations focus on understanding the various stages of the employee lifecycle to foster stronger relational contracts. Additionally, they propose the implementation of Buddy Programs, as in the long term, this contributes significantly to engagement.

This, along with a transformational leadership style that promotes inspiring and challenging work, can mitigate the effect of reduced job satisfaction (Donkor *et al.*, 2022).

Furthermore, companies must design a value proposition for young people based on learning and development opportunities, flexible schedules, promotion of social integration at work, and a variable remuneration system that stimulates better performance.

Based on the findings derived from this research, it is recommended that further investigations into engagement and job satisfaction across different age groups be conducted, particularly within various sectors of the economy. Special attention should be given to understanding the factors influencing commitment in the commercial sector, considering that our study identified challenge, inspiration, absorption, and happiness when absorbed at work as the primary significant variables. Another point of study will be to explore the impact of age on job satisfaction in diverse sectors is crucial, given our findings indicating a quadratic and concave relationship.

In addition, it is essential to acknowledge the potential impact of life events such as parenthood on job satisfaction, as the results showed a high negative significance. Research in this area indicates that the responsibilities associated with parenthood, such as childcare duties and balancing work and family life, can create additional stressors that may diminish overall job satisfaction (Walsh and Murphy, 2021). This aligns with the broader understanding of work-life balance and its significance in employee well-being.

Moreover, the presence of children can influence various aspects of an individual's professional life, including career advancement opportunities, flexibility in work arrangements, and overall job engagement. These factors may contribute to differences in job satisfaction levels among employees with and without children (Estes, 2005; Glass *et al.*,2016; Windsor and Crawford, 2019; Walsh and Murphy,2021). Therefore, while our study primarily focuses on the components of engagement and their relationship with job satisfaction, it's crucial for future research to explore how factors like parenthood intersect with these dynamics.

While acknowledging these valuable insights, it is important to note the model's limitations. We are aware of certain deficiencies, such as the absence of data on specific demographic variables that could further refine our analysis. Furthermore, expanding the scope of information to encompass a broader range of sectors and different time periods, including a time series analysis, would provide a more comprehensive perspective. This extension could offer valuable insights into the dynamics of engagement and job

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

satisfaction, allowing for a more informed and strategic approach to policy formulation.

On the other hand, these types of data lend themselves to the application of more robust statistical models. Utilizing other statistical strategies would enhance our ability to discern causal effects.

In conclusion, this study delved into the relationship between engagement and job satisfaction among employees of commercial companies in Peru. Through a methodological approach that allowed for the inclusion of control variables and the detailed study of the components of engagement, empirical evidence has been provided to support the importance of inspiration, challenge, absorption, and happiness at work in driving job satisfaction.

References

Belsley, D. A. (1991). A guide to using the collinearity diagnostics. *Computer Science in Economics and Management*, *4*(1), 33-50. https://doi.org/10.1007/BF00426854

Brief, A. P. (1998). Attitudes in and around organizations (Vol. 9). Sage. https://bit.ly/3T3VSQZ

Britt, T. W., Castro, C. A. and Adler, A. B. (2005). Self-engagement, stressors, and health: A longitudinal study. *Personality and Social Psychology Bulletin, 31,* 1475-1486. https://doi.org/10.1177/0146167205276525

Coloma, M. G. (2020). Issues in Fintech Regulation: What can Peru learn from other countries? *Technium Social Sciences Journal*, 9(1), 678-682. https://doi.org/10.47577/tssj.v9i1.1120

Csikszentmihalyi, M. (1975). Beyond boredom and anxiety. Jossey-Bass. https://psycnet.apa.org/record/2000-12701-000

Donkor, F., Appienti, W. A. and Achiaah, E. (2022). The impact of transformational leadership style on employee turnover intention in state-owned enterprises in Ghana. *The mediating role of organisational commitment. Public Organization Review*, *22*(1), 1-17. https://doi.org/10.1007/s11115-021-00509-5

Economic activity. (2022). *FocusEconomics*. https://bit.ly/3T0klq7

Ellickson, M. C. and Logsdon, K. (2002). Determinants of job satisfaction of municipal government employees. *Public Personnel Management, 31*(3), 343-358. https://doi.org/10.1177/009102600203100307

Estes, S. B. (2005). Work-Family arrangements and parenting: are "family-friendly" arrangements related to mothers' involvement in children's lives? *Sociological Perspectives*, *48*(3), 293-317. https://doi.org/10.1525/sop.2005.48.3.293

Fisher, C. D. (2010). Happiness at work. *International Journal of Management Reviews*, *12*(4), 384-412. https://doi.org/0.1111/j.1468-2370.2009.00270

Foncubierta-Rodríguez, M. J. and Sánchez-Montero, J. M. (2019). Hacia la felicidad laboral: Atender motivaciones y eliminar «temores digitales». *Retos Revista de Ciencias de la Administración y Economía, 9*(18), 239-257. https://doi.org/10.17163/ret.n18.2019.04

Glass, J., Simon, R. W. and Andersson, M. A. (2016). Parenthood and happiness: effects of work-family reconciliation policies in 22 OECD Countries. *American Journal of Sociology*, *122*(3), 886-929. https://doi.org/10.1086/688892

Gutiérrez Zarza, Á. (2015). 'The Area of Freedom, Security and Justice of the EU'. En Á. Gutiérrez Zarza (ed.), *Exchange of information and data protection in cross-border criminal proceedings in Europe*. Berlin. *Heidelberg Journal Springer*, 11-54. https://doi.org/10.1007/978-3-642-40291-3_2

Hamermesh, L. A. (2001). A kinder, gentler critique of Van Gorkom and its less celebrated legacies. Nw. *UL Rev., 96,* 595. https://bit.ly/3T6GCCK

Instituto Nacional de Estadística e Informática. (2023). Comportamiento de los indicadores de mercado laboral a nivel nacional (No. 4). https://bit.ly/INEI2023

Judge, T. A., Thoresen, C. J., Bono, J. E. and Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin, 127*(3), 376-407. https://doi.org/10.1037/0033-2909.127.3.376

Judge, T. A. and Klinger, R. (2008). Job satisfaction: Subjective well-being at work. En M. Eid y R. J. Larsen (eds.), *The science of subjective well-being* (pp. 393-413). The Guilford Press. https://bit.ly/3T5m6mi

Karanika-Murray, M., Duncan, N., Pontes, H. M. and Griffiths, M. D. (2015). Organizational identification, work engagement, and job satisfaction. *Journal of Managerial Psychology*. https://doi.org/10.1108/JMP-11-2013-0359

Le Blanc, P. M., González-Romá, V. and Wang, H. (2021). Charismatic leadership and work team innovative behavior: The role of team task interdependence and team potency. *Journal of Business and Psychology*, *36,* 333-346. https://doi.org/10.1007/s10869-019-09674-3

Llorens, S. (2009). *Liderazgo transformacional y capital psicológico positivo: un estudio de caso en una empresa de construcción.* https://bit.ly/Llorens2009

Llorens, M., Passalia, M. G., Loinaze, V. P. and Vera, E. I. (2010). High-precision late Aptian Pb/U age for the Punta del Barco Formation (Baqueró Group), Santa Cruz Province, Argentina. *Journal of South American Earth Sciences*, *31*(4), 426-431. https://doi.org/10.1016/j.jsames.2011.03.012

Macey, W. H. and Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 1*(1), 3-30. https://doi.org/10.1111/j.1754-9434.2007.0002.x

Macklin, D. S., Smith, L. A. and Dollard, M. F. (2006). Public and private sector work stress: workers compensation, levels of distress and job satisfaction, and the demand- control-support model. *Australian Journal of Psychology*, *58*(3), 130-143. https://doi.org/10.1080/00049530600940190

Madero, S., Ortiz, O. E. and Guerra, E. M. (2021). Flexibility strategies and their relationship with workplace environment, dedication and intellectual challenge. *CienciaUAT*, *15*(2), 122-134. https://doi.org/10.29059/cienciauat

Montgomery, D. C., Peck, E. A. and Vining, G. G. (2012). *Polynomial regression models. Introduction to Linear Regression Analysis*, *821*. http://dx.doi.org/10.5430/ijba.v6n6p59

Nakamura, J. and Csikszentmihalyi, M. (2009) 'Flow theory and research'. *Handbook of Positive Psychology*. https://bit.ly/3Z0NCoL

Nunnally, J. C. and Bernstein, I. H. (1994). *Psychometric theory.* McGraw-Hill. https://bit.ly/3Mnkmkk

Reynoso, D. W. and Arbaiza, L. (2023). Conductas elegidas o forzadas a elegir: normas y valores asumidos por los ejecutivos. *Retos Revista de Ciencias de la Administración y Economía, 13*(25), 21-33. https://doi.org/10.17163/ret.n25.2023.02

Robbins, H. and Finley, M. (2004), The accidental leader: what to do when you're suddenly in charge. *Jossey-Bass Journal*. https://doi.org/978-0-787-97175-5

Roth, L. H. O., Bencker, C., Scherz, A. and Laireiter, A. R. (2023). Replication and validation of the happiness-increasing strategies scale in a German-speaking sample. *European Journal of Applied Positive Psychology*, *7*(5), 2397-7116. https://bit.ly/3X1c6vd

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*. https://doi.org/10.1108/02683940610690169

Salanova, M., Schaufeli, W. B., Llorens Gumbau, S., Silla, P. and Grau Gumbau, R. M. (2000). From burnout to engagement: A new perspective. *Journal of Work and Organizational Psychology*, *16*(2), 117-134. https://bit.ly/3X4fsgX

Sandhya, S. and Sulphey, M. M. (2019). An assessment of the contribution of employee engagement, psychological contract and psychological empowerment towards turnover intentions of IT employees. *International Journal of Environment, Workplace and Employment*, *5*(1), 22-31. https://doi.org/10.1504/IJGEI.2018.097186

Shimazu, A. and Schaufeli, W. B. (2009). Is workaholism good or bad for employee well-being? The distinctiveness of workaholism and work engagement among Japanese employees. *Industrial Health, 47*(5), 495-502. https://doi.org/10.2486/indhealth.47.495

Schaufeli, W. B., Salanova, M., González-Romá, V. and Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies*, *3*(1), 71-92. https://doi.org/10.1023/A:1015630930326

Schaufeli, W. B. and Taris, T. W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work & Stress*, *19*(3), 256-262. https://doi.org/10.1080/02678370500385913

Schaufeli, W. B., Bakker, A. B. and Salanova, M. (2006). The measurement of work engagement with a short questionnaire: a cross-national study. *Educational and Psychological Measurement*, *66*(4), 701-716. https://doi.org/10.1177/0013164405282471

Spector, P. E. (1997). Job satisfaction: application, assessment, causes, and consequences (Vol. 3). *Sage*. https://doi.org/10.4135/9781452231549

Straume, L. V. and Vitterso, J. (2012). Happiness, inspiration and the fully functioning person: Separating hedonic and eudaimonic well-being in the workplace. *The Journal of Positive Psychology*, *7*(5), 387-398. https://doi.org/10.1080/17439760.2012.711348

Swid, A. (2016). Unwrapping the relation between work environment and job satisfaction. International *Journal of Environment, Workplace and Employment*, *4*(2), 150-170. https://doi.org/10.1504/IJEWE.2016.080452

Thrash, T. M. and Elliot, A. J. (2004). Inspiration: core characteristics, component processes, antecedents, and function. *Journal of Personality and Social Psychology*, *87*(6), 957-973.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

https://doi.org/10.1037/0022-3514.87.6.957

Tkach, C. and Lyubomirsky, S. (2006). How do people pursue happiness? Relating personality, happiness-increasing strategies, and well-being. *Journal of Happiness Studies*, *7*(2), 183-225. https://doi.org/s10902-005-4754-1

Walsh, E. and Murphy, A. (2021). Life satisfaction amongst working parents: examining the case of mothers and fathers in Ireland. *International Journal of Social Economics*, 48(4), 622-639. https://doi.org/10.1108/ijse-05-2020-0295

Watanabe, K., Imamura, K., Eguchi, H., Hidaka, Y., Komase, Y., Sakuraya, A. and Tsutsumi, A. (2023). Usage of the brief job stress questionnaire: a systematic review of a comprehensive job stress questionnaire in Japan from 2003 to 2021. *International journal of environmental research and public health*, *20*(3), 1814. https://doi.org/10.3390/ijerph20031814

Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human resource management review*, 12(2), 173-194. https://doi.org/10.1016/S1053-4822(02)00045-1

Windsor, L. C. and Crawford, K. F. (2019). Best practices for normalizing parents in the academy: higher- and lower-order processes and women and parents' success. *PS, Political Science & Politics*, *53*(2), 275-280. https://doi.org/10.1017/s1049096519001938

Yeh, J. W. (2013). Alloy design strategies and future trends in high-entropy alloys. *Jom, 65*(12), 1759-1771. https://doi.org/10.1007/s11837-013-0761-6

Zarza, L. A. (2013). Operational logistics and the limits of the campaign. https://bit.ly/Zarza2013

Zelenski, J. M., Murphy, S. A. and Jenkins, D. A. (2008). The happy-productive worker thesis revisited. *Journal of Happiness Studies*, *9*(4), 521-537. https://doi.org/10.1007/s10902-008-9087-4

october 2024-march 2025
pp. 217-232
https://doi.org/10.17163/ret.n28.2024.03

Human resource analytics for change and happiness management

Analíticas de recursos humanos para la gestión del cambio y de la felicidad

Arturo-Julián Abellán-Sevilla

PhD student in the Doctoral Program in Social and Legal Sciences of the International Doctoral School of the University Rey Juan Carlos, Spain
aj.abellan.2022@alumnos.urjc.es
https://orcid.org/0009-0002-6572-9372

Marta Ortiz-de-Urbina-Criado

Professor and researcher at Universidad Rey Juan Carlos, Spain
marta.ortizdeurbina@urjc.es
https://orcid.org/0000-0001-7527-6798

Eva-María Mora-Valentín

Professor and researcher at Universidad Rey Juan Carlos, Spain
evamaria.mora@urjc.es
https://orcid.org/0000-0002-7330-0667

Received on: 14/02/24 **Revised on:** 27/05/24 **Approved on:** 19/08/24 **Published on:** 01/10/24

Abstract: companies are in a constant process of change, and they need to be flexible and innovative and take care of the well-being of their employees. Events such as the pandemic COVID19 have highlighted the need to consider new perspectives to address Human Resources Management. Human Resource Analytics (HRA) are tools that help to understand and implement better Human Resources policies and strategies. However, many of the literature reviews on HRA only analyze what has been published up to 2021 and, moreover, do not usually consider different time periods for Identifying the issues studied, which would help to better understand the evolution of the issues. Therefore, the aim of this paper is to present a structured and period-based picture of the main Human Resource Analytics themes studied and to propose new themes for future research. The results obtained have been grouped into the following thematic categories: context, internal aspects, tools, applications and effects. From these results, two novel themes have been identified: change management and happiness management. And two theoretical models for the adoption of HRA have been proposed, one on decision-making and one on organizational change. These models can serve as a starting point for future research and have a direct application for decision making in companies.

Keywords: human-resources, analytics, workforce, change, wellbeing, happiness, firm, bibliometrics.

Abstract: en el entorno empresarial actual, las organizaciones están en constante proceso de cambio y tienen que ser flexibles e innovadoras, cuidando el bienestar de sus trabajadores. Acontecimientos como la pandemia han puesto de manifiesto la necesidad de considerar nuevas perspectivas para abordar la gestión de los recursos humanos. Las analíticas de recursos humanos (ARH) son herramientas que ayudan a entender y aplicar mejores políticas en este ámbito. Sin embargo, muchas de las revisiones de la literatura sobre ARH solo analizan lo publicado hasta 2021 y, además, para la identificación de las temáticas estudiadas no suelen considerar diferentes periodos temporales, que ayudarían a entender mejor la evolución de las temáticas. Por ello, el objetivo de este trabajo es presentar una imagen estructurada y por periodos de los principales temas estudiados sobre ARH y proponer otros nuevos para la investigación futura. Los resultados obtenidos se han agrupado en las siguientes categorías temáticas: contexto, aspectos internos, herramientas, aplicaciones y efectos. A partir de estos resultados, se han identificado dos temas novedosos: la gestión del cambio y la gestión de la felicidad, y se han propuesto dos modelos teóricos para la adopción de ARH, uno de toma de decisiones y otro sobre cambio organizativo. Estos modelos pueden servir como punto de partida para futuras investigaciones y tienen una aplicación directa como herramienta de ayuda en la toma de decisiones en las empresas.

Keywords: recursos humanos, analíticas, trabajadores, cambio, bienestar, felicidad, empresa, bibliometría.

Suggested citation: Abellán-Sevilla, A.-J., Ortiz-de-Urbina-Criado, M. and Mora-Valentín, E.-M. (2024). Human resource analytics for change and happiness management. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 217-232. https://doi.org/10.17163/ret.n28.2024.03

Introduction and state-of-the-art

Companies are in constant process of change so they need to be flexible and innovative and also must seek the welfare of their workers (Ravina-Ripoll *et al.*, 2019a). Happiness and well-being at work are part of the objectives presented in the 2030 Agenda and pose a challenge for organizations, which have to consider changes in their management models to obtain sustainable competitive advantages (Ravina-Ripoll *et al.*, 2021a; 2021b; 2023b). Contreras-Contreras *et al.* (2023) establish a direct relationship between happiness and expectations of change and sustainable behavior in a post-COVID world. Managing job happiness helps to improve the organizational climate and individual and organizational performance (Ravina-Ripoll *et al.*, 2017).

In this context, business leaders have the role of enabling the necessary changes to enhance the creative thinking, well-being and happiness of workers (Ruiz-Rodríguez *et al.*, 2023; 2024; Díaz-García *et al.*, 2024). There is an interet in the academy to apply human resources tools for implementing models of happiness management (Abellán-Sevilla and Ortiz-de-Urbina-Criado, 2023). Phenomena such as the Great Resignation have shown the importance of having human resources analytics -HRA- which help to better understand human resources strategies and policies and facilitate the processes of change and the management of happiness at work (Abellán-Sevilla and Ortiz-de-Urbina-Criado, 2023). However, there is still little progress in this regard. Therefore, this work takes as a starting point the research on HRA to raise the topics that have been studied and analyze its usefulness and its application in the processes of change and happiness management.

Literature on HRA has grown in recent years (Thakral *et al.*, 2023). The most commonly used terms are human resources analytics, personnel analytics, workforce analytics, or human capital analytics (Fernández and Gallardo-Gallardo, 2021; Thakral *et al.*, 2023). The main aspects studied in previous reviews of the literature, organized around five basic questions, are summarized below. The first question is what are HRAs? In relation to this issue, some works have focused on defining and delimiting this concept (for example, Fernández and Gallardo-Gallardo, 2021; Margherita, 2022; Qamar and Samad, 2022; Ramachandran *et al.*, 2024; Singh and Muduli, 2021). Fernández and Gallardo-Gallardo (2021) and Falletta and Combs (2021) have collected the main definitions, and from them, one that integrates the main characteristics of those has been proposed in this research:

Human Resources Analytics (HRA) is a statistical analysis and modeling methodology, which uses the capabilities offered by the most advanced information systems, especially *Big Data,* to collect, model and analytically interpret data related to human resources of a company, so that the decision-making process in the field of HR is optimized under a strategic management approach, with the aim of improving individual and organizational performance, thus obtaining the best possible performance of the staff and the organization itself.

The second question is where have HRAs been applied? Human Resources (HR) processes or functions such as recruitment, selection and training are referred to in this case (e.g. Qamar and Samad, 2022; Singh and Muduli, 2021; Thakral *et al.*, 2023; Yoon *et al.*, 2023; Zeidan and Itani, 2020). For the third question, how have HRAs been implemented? and factors affecting HRA adoption have been considered (e.g., Coolen *et al.*, 2023; Lee and Lee, 2023; Margherita, 2022; Pongpisutsopa *et al.*, 2020; Ramachandran *et al.*, 2024; Thakral *et al.*, 2023) as well as the technical tools that have been used (e.g., Ben-Gal, 2019; Coron, 2022; Margherita 2022). In this sense, Big Data and Information and Communication Technologies (ICT) of Industry 4.0 have been widely applied in the management of HRs. (Jiang and Akdere, 2022). According to Polzer (2022), HRAs, artificial intelligence and technologies which are cloud-based are popular topics related to digital transformation in HR. However, there is still a gap between research and business practice.

The fourth question is what are the reasons for adopting HRA? In this case, the reasons may range from providing a tool to measure HR aspects to making predictions that help companies make decisions about HR (e.g., Marler and Boudreau

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

2017; Qamar and Samad 2022; Singh and Muduli 2021; Zeidan and Itani 2020). Finally, to answer the question: what are HRAs implemented for? we analyzed what drives companies to use HRA in their HR processes. In this sense, they have been analyzed from the effects on company results (for example, Jiang and Akdere, 2022; Kiran *et al.*, 2023; Margherita, 2022; Marler and Boudreau, 2017; Zeidan and Itani, 2020) to other aspects more related to corporate social responsibility such as ethics (Fernández and Gallardo-Gallardo, 2021; Lee and Lee, 2023; McCartney and Fu, 2022a; Yoon *et al.*, 202) and/or sustainability (Álvarez-Gutiérrez *et al.*, 2022; Chang and Ke, 2024).

Reviews of the literature on RHAs have used different methodologies as systematic reviews of the literature (e.g. Ben-Gal, 2019; Coolen *et al.*, 2023; Coron, 2022; Espegren and Hugosson, 2023; Fernández and Gallardo-Gallardo, 2021; Kiran *et al.*, 2023; Margherita, 2022; Ramachandran *et al.*, 2024), integrative reviews of the literature (Chang and Ke, 2024; Lee and Lee, 22), content analysis (e.g., Álvarez-Gutiérrez *et al.*, 2022; Thakral *et al.*, 2023) or bibliometric techniques (e.g., Arora *et al.*, 2023; Jiang and Akdere, 2022; Qamar and Samad, 2022; Yoon *et al.*, 2023). However, studies that apply bibliometric techniques usually perform descriptive or co-citation analyzes, rather than co-word analysis. The COVID-19 pandemic has shown the need to consider new perspectives and paradigms to address the management of HRs. HH. However, no reviews of the literature that differentiate between periods have been found to identify the changes produced. On the other hand, previous studies have identified some of the characteristics of the literature on HRA until 2021 but no works have been found that present a structured image of the topics studied on HRA.

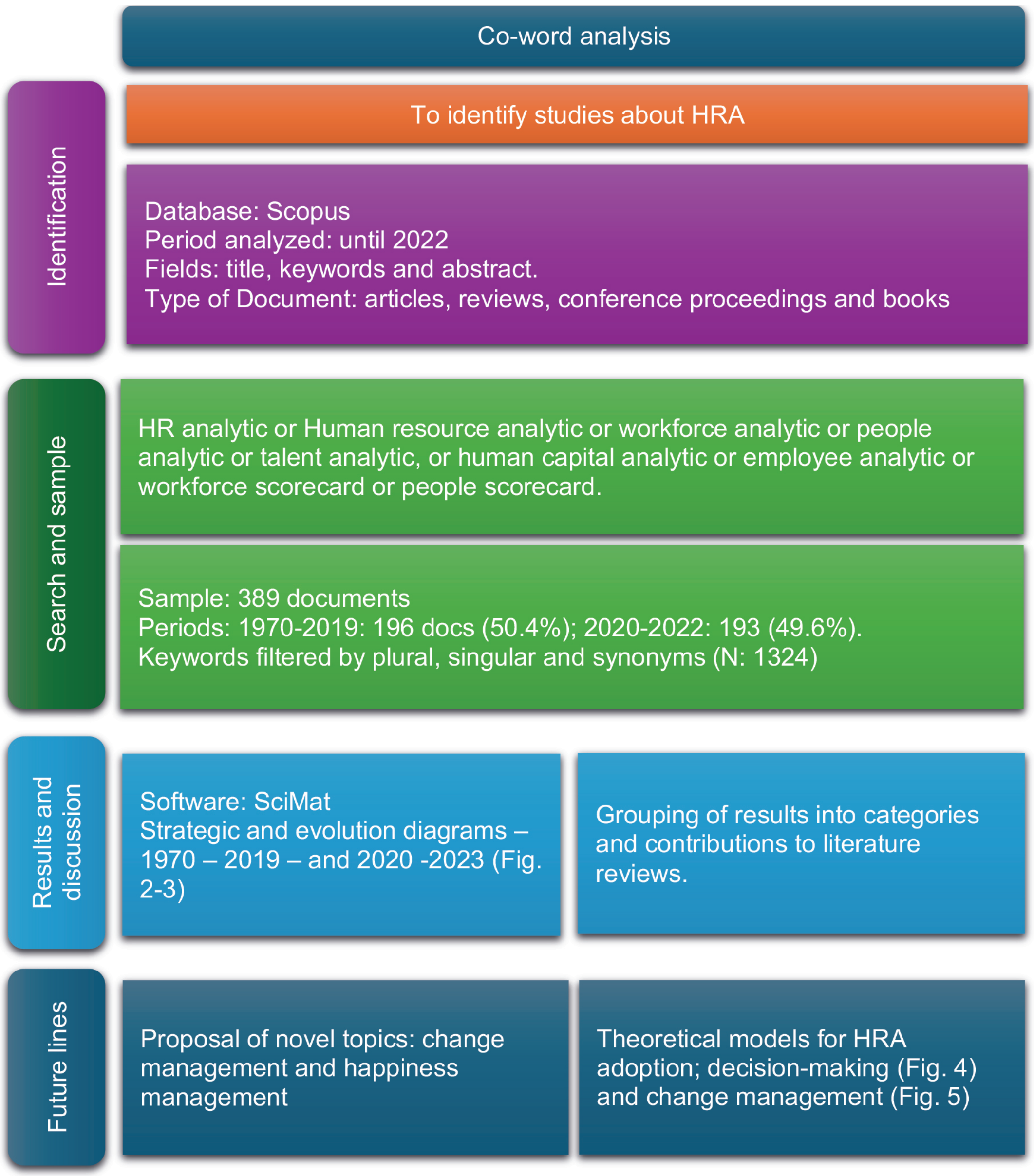
Considering the interest of the topic and the identified gaps, the objective of this work is to present a structured classification of the main topics studied on HRA and to propose new topics for future research. Thus, two research questions have been asked: 1) What topics have been studied on HRA? and 2) What are the novel topics of research on HRA?

To answer these questions, first, a co-word analysis has been carried out, which is an appropriate technique to present the knowledge structure of the research field and the relationships between its topics (Cobo *et al.*, 2011). The results obtained, i.e. the topics identified, have been grouped into the following categories: context, internal aspects, tools, applications and effects. Based on these results, two novel topics have been identified: the management of change and happiness. In addition, two theoretical models have been proposed, one of decision-making for using HRA and another model on organizational change, which make up the main contribution of the work. These models can serve as a starting point for future research and have a direct application for decision-making in companies.

Methods

Figure 1 summarizes the methodological process. To answer the first research question, the topics studied in the previous literature have been identified using a bibliometric technique called co-word analysis, which allows to identify the topics or thematic groups studied, using keywords as a unit of analysis. In the analysis of co-words, methods such as concurrency analysis are applied to relate themes from keywords and strategic diagrams and thematic networks are elaborated. The SciMat program has been used to carry out these analyzes, offering the appropriate methods, algorithms and measures to perform keyword concurrency analysis and identify topics and groups of topics (Cobo *et al.*, 2012). Moral-Muñoz *et al.* (2020) have justified the suitability of SciMat as a tool to carry out co-word analysis and offer graphical representations of the results in the form of strategic diagrams and thematic networks. The Scopus database has been used as a source of information because it presents some advantages over other databases such as the Web of Science (Stahlschmidt and Stephen, 2020) and, especially, because a larger sample of documents was obtained for this study. To answer the second research question, the titles and abstracts of the works published in recent years have been analyzed to observe the most current topics and conduct a process of reflection that has allowed to propose two interesting and novel topics.

Figure 1
Methodological process



Note. Own elaboration inspired by the PRISMA method.

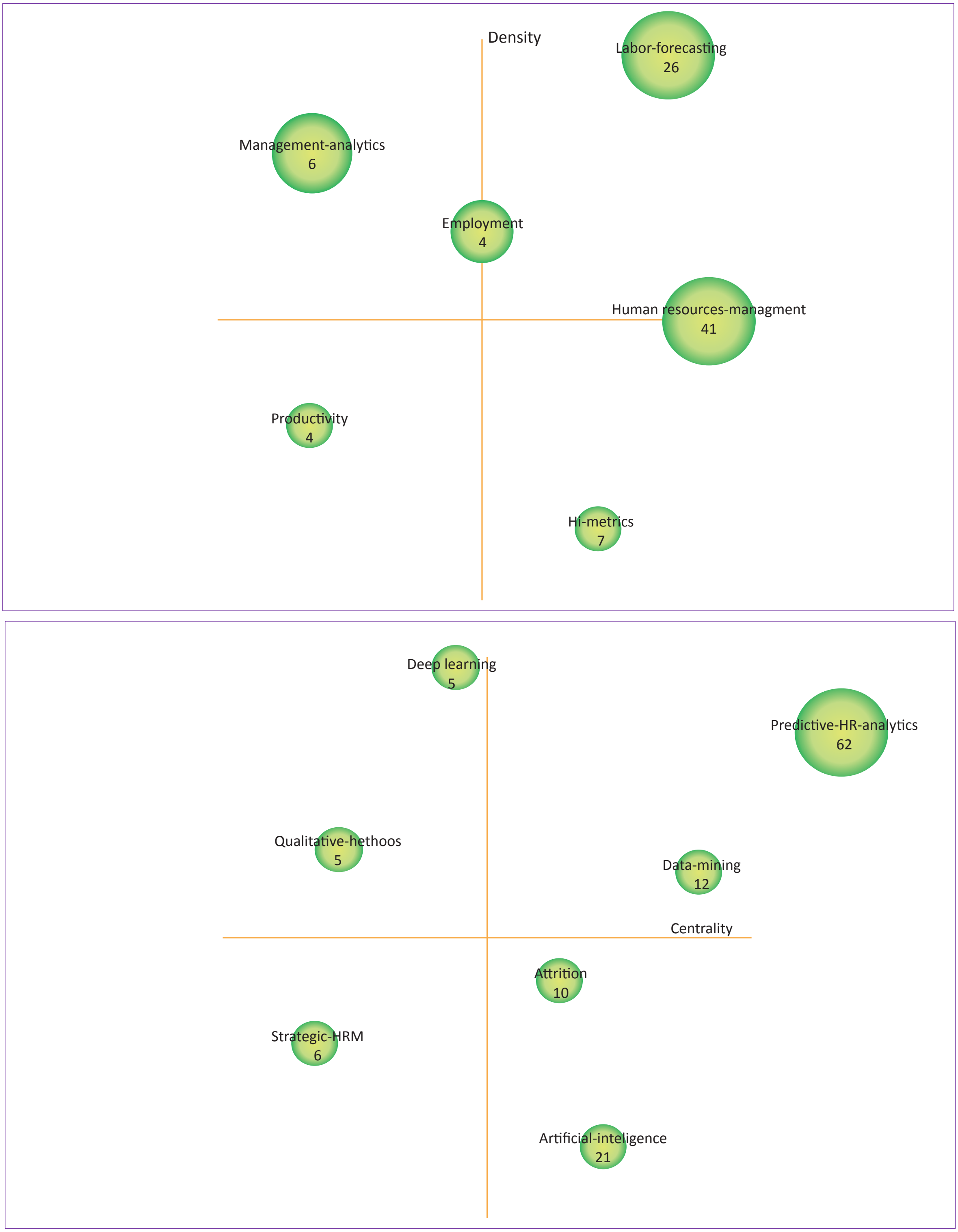
Results and discussion

The measures of centrality and density have been considered to do the strategic diagrams. Each semantic network has been classified, following the proposal of Cobo *et al.* (2018), in one of these groups: well-developed or isolated, emerging or disappearing, basic or transversal topics and engines. To give a complete view of the studied and to be able to see the changes produced before events such as the pandemic or the Great Renunciation, two periods of analysis have been considered: from 1970-2019 and the period 2020-2022 (Figure 2 and Table 1).

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Figure 2

Strategic diagram for the periods 1970-2019 (docs. n) and 2020-2022 (docs. n)



Note. SciMat results.

Table 1

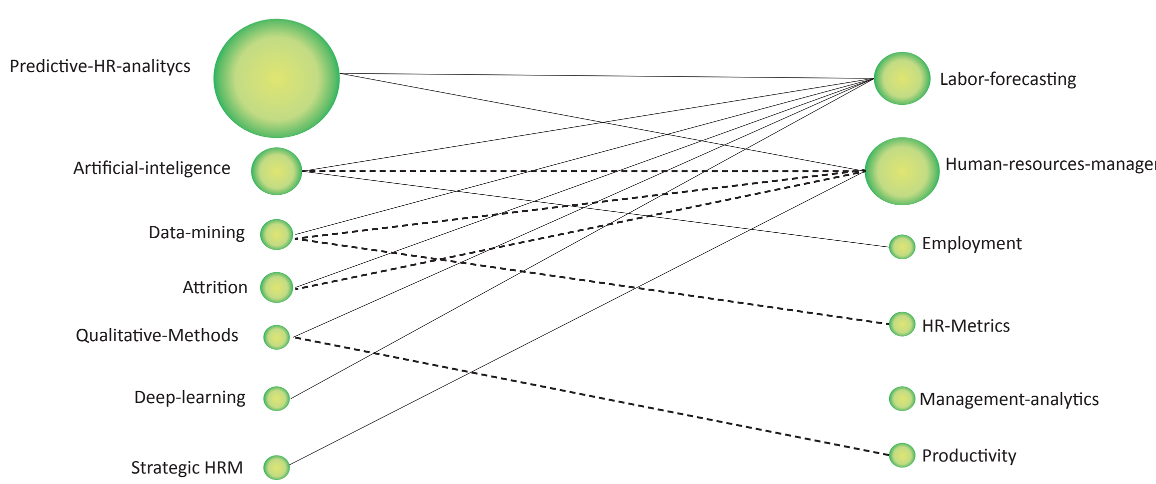
Thematic groups and typology

Periods	Thematic groups	Group Type
1970–2019	*Labor-Forecasting*	Pilot
	Human Resources Management	A basic-transverse pilot
	Employment	Well-developed pilot
	HR-Metrics	Basic-transverse
	Management-Analytics	Well developed
	Productivity	Emerging
2020–2022	*Predictive HR Analytics*	Pilot
	Data-Mining	
	Artificial Intelligence	Basic-transverse
	Attrition	
	Qualitative-Methods	Well developed
	Deep-Learning	
	Strategic HRA	Emerging

To compare the different time periods (Figure 3), the inclusion index of Sternitzke and Bergmann (2009) has been used to determine the level of similarity between two thematic networks over different time periods (Cobo *et al.*, 2011). The literature that goes until 2019 has focused mainly on analyzing the role of HRA in job satisfaction and its effect on the company's result. Also, as an emerging topic in this period, HRAs have been considered from the perspective of the strategic direction of HRs. However, as of 2020, the literature has focused on the application of tools such as *deep-learning*, data mining and artificial intelligence and on their strategic and predictive ability. In this period, the interest in studying the role of HRA in subtractive processes has also been highlighted, i.e., in the different ways of leaving the employees of the organization for any reason – voluntary or involuntary – including resignation, dismissal or retirement.

Figure 3

Temporary developments for the periods 2020-2022 and 1970-2019



Note. SciMat results.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

What topics have been studied about HRA?

In relation to the first research question, the topics identified have been classified into the following groups: context, internal aspects, tools used, applications and effects. As far as the context is concerned, HR professionals have faced new realities and have been adopting integrated management models to improve human capital management. Qamar and Samad (2022) have identified a study group on the adoption of HRAs from the strategic perspective of HR and other authors have studied the basic concepts and theories used to develop HRAs. The studies have been trying to explain the role of HR on competitive advantage, and the reasons why proper selection of staff is crucial for an organization. On the other hand, the impact of high-performance work systems on organizational results has been explained, relating the results of HR with business results. Research papers have also highlighted the importance of talent, the need to move towards HR models based on the combination of intuition and technologies and their impact on organizational outcomes (Al Ariss *et al.*, 2014). In addition, the HR strategic direction approach has been used to carry out longitudinal studies from the HRA, so that the HR strategies are studied focusing on aspects such as employee and other interest group behavior (McCartney *et al.*, 2020).

As for internal aspects, the practices of HR have been considered. For example, the application of HR in the selection processes (Brandt and Herzberg, 2020) and staff retention processes (Singh and Malhotra, 2020) has been studied. Subtractive processes have worried researchers a lot since the COVID-19 pandemic (Krishna and Sidharth, 2022). Therefore, some aspects related to staff retention have been analyzed, such as commitment, absenteeism, satisfaction and HR management. 4.0. However, HRAs have been applied heterogeneously in HR practices (Sripathi and Madhavaiah, 2018). The future of RHA depends on the efficiency of these departments in handling HR data, but it has been observed that there are still few HR professionals with the necessary skills to apply them (Wiblen and Marler, 2021).

The third group includes the tools used in the development and implementation of HRAs. The two central themes have been *Big Data* and artificial intelligence (AI). AI has been used to implement HRAs integrated into HR information systems and develop them using machine learning algorithms (Pessach *et al.*, 2020). It has been analyzed how they are used in recruitment processes, e-commerce, for knowledge transfer and for the pursuit of efficiency, but the legal aspects have not yet been deeply studied. On the other hand, HRA cannot be understood without considering *Big Data* (Ghasemaghaei, 2020), which has allowed the development of analytics in the digital economy for companies. And its role in remuneration policies has been analyzed (Dahlbom *et al.*, 2020).

Applications and effects of HRAs have been included in the last group. The HRAs have been a support for HR planning by offering recommendations thanks to the application of data science. Some of the barriers to their adoption in companies have also been identified, among which privacy issues stand out (Chatterjee *et al.*, 2021). Information technologies have helped to collect, manipulate and analyze data to support decision-making processes (Qamar and Samad, 2022). On the other hand, Greasley and Thomas (2020) have analyzed its implications—social, political and epistemological—on the perceived value of interest groups. In addition, it has been observed that companies often use qualitative systems for assessing HR, but the most current work has called for the development of quantitative measurement indicators of HR, the so-called *Key Performance Indicators* (KPIs). Another application of HRA has been the conduction of predictive analysis (Gurusinghe *et al.*, 2021), as support for decision-making. In this line, Qamar and Samad (2022) have highlighted the direct relationship between HRAs and value creation and McCartney and Fu (2022b) have provided empirical evidence on the positive impact of HRAs on companies.

If these results are compared with those of the previous literature review studies presented in the introduction, several complementary aspects are observed. On the one hand, previous studies have not analyzed the topics considering two periods, nor have they made a proposal for their grouping. In this sense, the classification presented in this section has allowed us to propose four questions around the topics studied on RHA: 1) In which contexts have RHA been studied? 2) To which HR processes. H. are they being applied? (3) What tools are being used? and (4) What are their applications and impact? Moreover, these results have been the starting point to identify other novel topics that have been explained in the following section.

Novel topics in HRA research

Previous literature has shown the usefulness of HRAs, but their use in business environments remains being limited (Zeidan and Itani, 2020). From the reflection process carried out, two novel topics have been identified to develop this idea: the management of organizational change and the management of happiness.

HRA and organizational change management

To develop future research, it may be interesting to incorporate the foundations of organizational behavior (Ramachandran *et al.*, 2024). Zubac *et al.* (2021) have analyzed the implementation of the strategy as an operational issue and have proposed what change management specialists need to do to achieve more adaptable and efficient workplaces. The authors have pointed out that the implementation of the strategy is established through decision-making processes, while organizational change helps the development of strategies, structures and organizational processes. In this line, research on HRAs is challenged to demonstrate the importance of its adoption and implementation in the business environment. Qamar and Samad (2022) have proposed some interesting questions: Is it desirable to adopt HRA in organizations? What changes would be needed? What are the ethical dilemmas regarding HRA? Wirges and Neyer (2023) have suggested that the process of implementing HRAs should take into account the interaction between the specialized department and the HR department. In addition, it has been highlighted that there are still few companies that use HRA (Marler and Boudreau, 2017; Sigh and Muduli, 2021). The background, determinants and consequences of the use of HRA have also been analyzed (Vargas *et al.*, 2018; Zeidan and Itani, 2020), and the barriers to its implementation (Fernández and Gallardo-Gallardo, 2021).

In this sense, research on HRA can deepen the role they have in the operational and strategic decision-making of companies. To guide future research, the first question a company can ask is: Do I want to adopt HRA? A proposal for a model decision-making model on the adoption of HRA is presented in Figure 4. If the answer to this question is yes, the next questions to ask would be: where do I apply it and to whom? In this sense, HRAs can be applied to HR processes since the decision on which and when to apply them is very relevant. In turn, this decision may be conditioned by the purpose for which HRAs are adopted in each HR process. Regarding the question of who they can be applied for, an interesting topic opens up which is the analysis of the role of interest groups with questions such as which of the objectives of each interest group can be covered with the use of HRA in each HR process? In addition, the importance of value creation in companies raises the following question: how to adopt and implement HRA in each HR process to meet the interests of the different interest groups and the organization as a whole? On the other hand, with regard to the question of how to adopt them, it is here that the usefulness and application of the Strategic Direction of the HRs is highlighted as a perspective to understand the adoption and implementation of HRA in companies.

Once the question of how to adopt them is answered, another question arises: how and why to adopt them? In this sense, it is useful to develop measurement indicators such as KPIs to measure results (for example, performance, economic and financial profitability) and to create value. Another possibility is that the company does not want to adopt them and wonders about the obstacles and ethical problems that their implementation can entail. For example, the potential

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

negative effects of HRAs in terms of inequality and well-being that can cause social and human costs. This is where the question arises: Why is it interesting to adopt HRA? which is closely related to aspects of organizational behavior such as organizational culture, motivation, communication, leadership, power, conflict, teamwork, decision-making and change (Robbins and Judge, 2018). For many companies, adopting HRA requires organizational changes and considering the influence of all aspects of organizational behavior on their decisions (Peeters *et al.*, 2020).

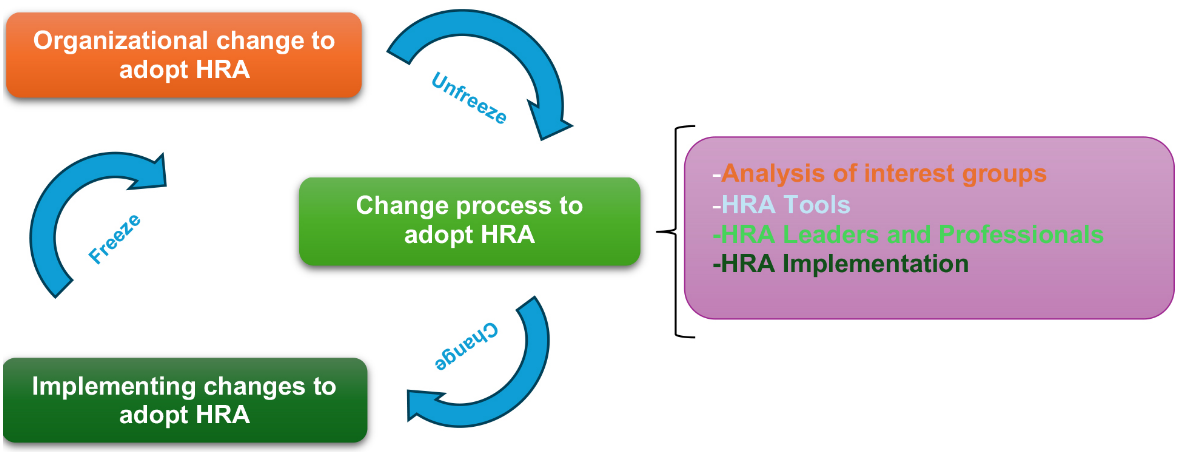
Figure 4

Decision-making model on the adoption of HRA

Furthermore, it has been observed that although previous literature has analyzed the obstacles and problems for the adoption of HRA, studies on this issue do not usually consider the contributions of organizational behavior. One of the key aspects of HRAs is their usefulness for decision-making (Coron, 2022; Ellmer and Reichel, 2021); but both the decision to adopt them and their implementation often require organizational changes (Qamarand Samad, 2022). One of the change models best known for its simplicity and usefulness is the Lewin model, which establishes three phases: unfreeze, change and refreeze (Lewin, 1951). Hussain *et al.* (2018) have presented an extension of the phases of the Lewin model. This model has been adapted so that it can serve as a guide to carry out the change processes necessary to adopt and implement HRAs (Figure 5).

Figure 5

Organizational change model for the use/implementation of HRA



Note. Own elaboration from the model of Hussain *et al.* (2018).

HRAs for happiness management

Another interesting aspect is the analysis of the role of interest groups in the adoption and implementation of HRAs. Hewett and Shantz (2021) have defined the process of RR co-creation as a continuous process in which HR and stakeholders create value through collaboration to solve problems and innovate in the design and use of HR practices so that the objectives of all parties can be better met. With this concept of co-creation, a holistic view of value creation that includes the needs of all stakeholders can be offered. By using this approach, HRAs can facilitate the identification and measurement of these needs.

One of the interest groups that requires the most attention is workers (Werbel and Balkin, 2010). Therefore, it is interesting to analyze the effect of the adoption and implementation of the HR from managerial and worker perspectives (Sung and Choi, 2014). Based on theories such as attribution (Martinko *et al.*, 2011), leadership and motivation models can be proposed to introduce the necessary changes in the behavior of workers. Thakral *et al.* (2023) have identified that one of the relevant topics is the role of HR in identifying employee behaviors that favor their well-being and the effectiveness of the organization. The characteristics of the employees that Thakral *et al.* (2023) have cited are: behavior, perception, attitude, personality, skill, competence, suitability for the position, improvement, commitment, teamwork, collaboration, value, trust, stress, well-being, ethics, justice, morality, equity and job satisfaction.

Some companies have found that increased employee happiness translates into higher productivity, higher quality of service, higher sales, greater creativity and higher levels of innovation; they also see greater openness to change, a greater collaborative spirit and, ultimately, better overall performance (Ravina-Ripoll *et al.*, 2019a; 2019b). In this context, which considers talent as the main core, a new style of talent management and business culture is developed, called happiness management (Ravina-Ripoll *et al.*, 2017; 2019a; 2019b; 2021a; 2021b; 2023a). The applications of HRAs for happiness management may be conditioned by the role of leaders in their adoption and implementation. At present, leaders must be authentic talent coaches, enhancing the personal growth of employees and ensuring that they maintain an adequate working climate, in line with the need to seek happiness in the midst of chaos (Sánchez-Bayón, 2020). Therefore, leadership must be based on trust, security, loyalty, commitment, team spirit and, above all, on improving the well-being of the worker. In that sense, Díaz-García *et al.* (2024) have defined a new style of leadership associated with the management of happiness, happy leadership.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Ruiz-Rodríguez *et al.* (2024) have developed the concept of happy and responsible neuroleadership (*Happy-Ne-R leadership*).

Recently, attention has been paid to the applications of HR for happiness management. In this sense, Abellán-Sevilla and Ortiz-de-Urbina-Criado (2023) have proposed a model that relates the HR analytics. Smart HR (*Smart Human Resource Analytics*) with happiness management. The authors have pointed out the interest of developing measurement and performance indicators (KPIs) to quantify the effect on happiness of each of the HR processes. Abellán-Sevilla and Ortiz-de-Urbina-Criado (2023) have suggested that the combination of Smart HR and happiness management can help identify dimensions and factors to measure value creation. In this sense, three levels of analysis have been proposed: 1) the organizational, considering factors such as corporate governance, entrepreneurship and innovation; 2) the individual, highlighting factors such as creativity, intraentrepreneurship and worker management; and 3) the relational, in which customers and social responsibility have their greatest role.

Starting from the idea that happiness in organizations is a reflection of the subjective well-being of the worker (Ravina-Ripoll *et al.*, 2017; 2019a; 2019b), happiness can be considered as an intangible resource that facilitates organizational changes helping to reduce or avoid workers' resistance to new technological, business and social challenges. Good happiness management can help attract and retain talent, but for this, it is necessary to show how to manage HR as objectively as possible for healthier and happier working environments. These ideas open a new line of future research to deepen and validate the application of HRAs for happiness management. Therefore, one of the novel topics that have been identified and that has not been developed in the previous literature is the application of HRA to measure the happiness of workers.

Conclusions

An analysis of the main topics studied in the literature on HRA has been conducted. To this end, two research questions have been answered. In relation to the first question, it has been observed that the previous literature has analyzed various topics that can be grouped into several categories: the context, the internal aspects, the tools used, the applications and the effects. This is one of the academic contributions of this work, as key issues have been identified in the literature on HRAs such as HR practices. Where HRAs are being applied, the tools are used for their development and adoption, and their utilities. To answer the second question, two novel topics and two theoretical models have been proposed that may be interesting to academics and managers. HRAs can help manage two of the biggest challenges companies face today: managing change and employee well-being. This is the major academic contribution of this work.

Human resource analytics are tools that help improve individual and organizational performance and can provide great value for decision-making. The adoption of human resources analytics is a relatively new phenomenon in companies that has become a complementary tool to adapt to change. Out of the aspects developed in this work, it is remarkable the fact that companies are subject to large processes of changes that significantly influence the welfare and performance of workers. In this sense, it is observed that studies about HRA in the processes of exit of employees from the organization have been conducted in recent years. These processes have a significant impact on the working environment and, more specifically, on worker happiness. Therefore, it is essential to consider the management of happiness when adopting and implementing HRA and analyze the processes of change that must be made to have happy employees.

Regarding the practical implications, following the suggestion of Edwards *et al.* (2024), the connection between HRA research and the real world has been sought. Although qualitative systems of HR assessment are often used. Currently, there has been a trend in the use of quantitative measurement indicators. In this sense, research on HRA can be used to develop measurement indicators that help assess value creation in companies. The new topics proposed and, in particular, the theoretical models presented in this work can serve as a guide for general managers and HR to better understand how to adopt and implement HRA. They can also be used for predictive analysis to support decision-making. Managing change and employee well-being can greatly benefit from the use of HRAs, and their development can help reduce turnover in companies and make workers happier. Therefore, it may be interesting that, in future research, the usefulness of HR for the management of employee happiness, as well as the changes necessary for its adoption, is analyzed.

Another practical implication relates to Markman's (2022) call for research to address problems that concern society to make the world a better place. Some socio-political implications of this work are seen in the fact that HR pose important ethical challenges due to the potential negative impact that bad management practices can have on employees and society. Under the slogan *people* analytics for good an ethical application of HRA is being promoted (Edwards *et al.*, 2024). In addition, Álvarez-Gutiérrez *et al.* (2022) propose a framework for developing HRA from the sustainability approach. In this context, many companies are concerned with issues such as diversity, hybrid work models and happiness management. This document can help professionals manage the change processes necessary to implement HRA in an ethical and sustainable way.

This research has some limitations related to the methodology used; however, future research may consider complementary techniques such as content analysis or case study. Statistical models such as decision trees and structural equation models can also be used to study decision-making processes and their effects on happiness in the workplace.

Finally, based on the ideas presented in Figures 4 and 5, new lines of research are proposed to answer questions such as: How can theories and models of organizational behavior be used to improve the implementation of HRA? How can change be managed for HRA adoption and deployment? How useful can HRAs be in achieving the objectives of different interest groups? In which HR processes can HRA be applied? How can the value created by the adoption and implementation of HRH be measured? On the other hand, the relevance, topicality and interest of happiness management leads to another question: How can HRA be used for happiness management in the workplace?

Research support and financial support

Entity: Ministry of Science and Innovation

Country: Spain

City: Madrid

Subsidized project: Corporate strategies, internationalization and key strategic factors in a global institutional context: determining factor of business performance and sustainability (Strategor).

Project Code: PID2021-124641NB-I00

Entity: Universidad Rey Juan Carlos

Country: Spain

City: Madrid

Subsidized project: High performance research group in open innovation of the Rey Juan Carlos University (OPENINNOVA).

Project Code: Internal Reference GI068

References

Abellán-Sevilla, A.-J. and Ortiz-de-Urbina-Criado, M. (2023). Smart human resource analytics for happiness management. *Journal of Management Development*, *42*(6), 514-525. https://doi.org/10.1108/JMD-03-2023-0064

Al Ariss, A., Cascio, W. F. and Paauwe, J. (2014), Talent management: current theories and future research directions. *Journal of World Business*, *49*(2), 173-179. https://doi.org/10.1016/j.jwb.2013.11.001

Álvarez-Gutiérrez, F. J., Stone, D. L., Castaño, A. M. and García-Izquierdo, A. L. (2022). Human resources analytics: a systematic review from a sustainable management approach. *Journal of Work and Organizational Psychology*, *38*(3), 129-147. https://doi.org/10.5093/jwop2022a18

Arora, M., Prakash, A., Dixit, S., Mittal, A. and Singh, S. (2023). A critical review of HR analytics: visualization and bibliometric analysis approach. *Information Discovery and Delivery*, *51*(3), 267-282. https://doi.org/10.1108/IDD-05-2022-0038

Ben-Gal, H. C. (2019). An ROI-based review of HR analytics: practical implementation tools.

Personnel Review, 48(6), 1429-1448. https://doi.org/10.1108/PR-11-2017-0362

Brandt, P. M. and Herzberg, P. and. (2020). Is a cover letter still needed? Using LIWC to predict application sucess. *International Journal of Selection and Assessment, 28*(4), 417-429. https://doi.org/10.1111/ijsa.12299

Chang, Y.-L. and Ke, J. (2024). Socially responsible artificial intelligence empowered people analytics: a novel framework towards sustainability. *Human Resource Development Review, 23*(1), 88-120. https://doi.org/10.1177/15344843231200930

Chatterjee, S., Chaudhuri, R., Vrontis, D. and Siachou, E. (2021). Examining the dark side of human resource analytics: an empirical investigation using the privacy calculus approach. *International Journal of Manpower, 43*(1), 52-74. https://doi.org/10.1108/IJM-02-2021-0087

Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E. and Herrera, F. (2011). Science mapping software tools: review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science and Technology, 62*(7), 1382-1402. https://doi.org/10.1002/asi.21525

Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E. and Herrera, F. (2012). SciMAT: a new science mapping analysis software tool. *Journal of the American Society for Information Science and Technology, 63*(8), 1609-1630. https://doi.org/10.1002/asi.22688

Cobo, M. J., Jürgens, B., Herrero-Solana, V., Martínez, M. A., y Herrera-Viedma, E. (2018). Industry 4.0: a perspective based on bibliometric analysis. *Procedia Computer Science, 139*, 364-371. https://doi.org/10.1016/j.procs.2018.10.278

Contreras-Contreras, P., Cuesta-Valino, P. and Gutiérrez-Rodríguez, P. (2023). Happiness and its relationship to expectations of change and sustainable behavior in a post-COVID world. *Journal of Management Development*, *42*(6), 458-482. https://doi.org/10.1108/JMD-04-2023-0107

Coolen, P., van den Heuvel, S., Van De Voorde, K. and Paauwe, J. (2023). Understanding the adoption and institutionalization of workforce analytics: A systematic literature review and research agenda. *Human Resource Management Review, 33*(4), 100985. https://doi.org/10.1016/j.hrmr.2023.100985

Coron, C. (2022). Quantifying human resource management: a literature review. *Personnel Review, 51*(4), 1386-1409. https://doi.org/10.1108/PR-05-2020-0322

Dahlbom, P., Siikanen, N., Sajasalo, P. and Jarvenpää, M. (2020). Big data and HR analytics in the digital era. *Baltic Journal of Management, 15*(1), 120-138. https://doi.org/10.1108/BJM-11-2018-0393

Díaz-García, G. A. Ortiz-de-Urbina-Criado, M. and Ravina-Ripoll, R. (2024). Happy leadership, now more than ever. *International Journal of Happiness and Development, 8*(3), 223-243. https://doi.org/10.1504/IJHD.2023.10060264

Edwards, M. R., Charlwood, A., Guenole, N. and Marler, J. (2024). HR analytics: an emerging field finding its place in the world alongside simmering ethical challenges. *Human Resource Management Journal, 34*(2), 326-336. https://doi.org/10.1111/1748-8583.12435

Ellmer, M. and Reichel, A. (2021). Staying close to business: the role of epistemic alignment in rendering HR analytics outputs relevant to decision-makers. *The International Journal of Human Resource Management*, *32*(12), 2622-2642. https://doi.org/10.1080/09585192.2021.1886148

Espegren, Y. and Hugosson, M. (2023). HR analytics-as-practice: a systematic literature review. *Journal of Organizational Effectiveness: People and Performance,* https://doi.org/10.1108/JOEPP-11-2022-0345

Falletta, S. V. and Combs, W. L. (2021). The HR analytics cycle: a seven- step process for building evidence-based and ethical HR analytics capabilities. *Journal of Work-Applied Management, 13*(1), 51-68. https://doi.org/10.1108/JWAM-03-2020-0020

Fernández, V. and Gallardo-Gallardo, E. (2021). Tackling the HR digitalization challenge: key factors and barriers to HR analytics adoption. *Competitiveness Review, 31*(1), 162-187. https://doi.org/10.1108/CR-12-2019-0163

Ghasemaghaei, M. (2020). Improving organizational performance through the use of big data. *Journal of Computer Information Systems, 60*(5), 395-408. https://doi.org/10.1080/08874417.2018.1496805

Greasley, K. and Thomas, P. (2020). HR analytics: the onto-epistemology and politics of metricised HRM. *Human Resource Management Journal, 30*(4), 494-507. https://doi.org/10.1111/1748-8583.12283

Gurusinghe, R. N., Arachchige, B. J. H. and Dayarathna, D. (2021). Predictive HR analytics and talent management: a conceptual framework. *Journal of Management Analytics, 8*(2), 195-221. https://doi.org/ 10.1080/23270012.2021.1899857

Hewett, R. and Shantz, A. (2021). A theory of HR co-creation. *Human Resource Management Review, 31*(4), 100823. https://doi.org/10.1016/j.hrmr.2021.100823

Hussain, T., Lei, S., Akram, T., Haider, M. J., Hussain, S. H. and Ali, M. (2018). Kurt Lewin's change model: a critical review of the role of leadership and employee involvement in organizational change. *Journal of Innovation & Knowledge, 3*(3), 123-127. https://doi.org/10.1016/j.jik.2016.07.002

Jiang, Y. and Akdere, M. (2022). An operational conceptualization of human resource analytics: implications for in human resource development. *Industrial and Commercial Training, 54*(1), 183-200. https://doi.org/10.1108/ICT-04-2021-0028

Kiran, P. R., Chaubey, A. and Shastri, R. K. (2023). Role of HR analytics and attrition on organisational performance: a literature review leveraging the SCM-TBFO framework. *Benchmarking: An International Journal*. https://doi.org/10.1108/BIJ-06-2023-0412

Krishna, S. and Sidharth, S. (2022). HR Analytics: Employee Attrition Analysis using Random Forest. *International Journal of Performability Engineering, 18*(4), 275-281. https://doi.org/10.23940/ijpe.22.04.p5.275281

Lee, J. and. and Lee Y. (2023). Integrative literature review on people analytics and implications from the perspective of human resource development. *Human Resource Development Review, 23*(1), 58-87. https://doi.org/10.1177/15344843231217181

Lewin, K. (1951). *Field theory in social science: selected theoretical papers*. Dorwin Cartwright.

Margherita, A. (2022). Human resources analytics: a systematization of research topics and directions for future research. *Human Resource Management Review, 32*(2), 100795. https://doi.org/ 10.1016/j.hrmr.2020.100795

Markman, G. D. (2022). Will your study make the world a better place? *Journal of Management Studies, 59*(6), 1597-1603. https://doi.org/10.1111/joms.12843

Marler, J. H. and Boudreau, J. W. (2017). An evidence-based review of HR analytics. *The International Journal of Human Resource Management, 28*(1), 3-26. https://doi.org/10.1080/09585192.2016.1244699

Martinko, M. J., Harvey, P. and Dasborough, M. T. (2011). Attribution theory in the organizational sciences: a case of unrealized potential. *Journal of Organizational Behavior, 32*(1), 144-149. https://doi.org/10.1002/job.690

McCartney, S. and Fu, N. (2022a). Promise versus reality: a systematic review of the ongoing debates in people analytics. *Journal of Organizational Effectiveness: People and Performance, 9*(2), 281-311. https://doi.org/10.1108/JOEPP-01-2021-0013

McCartney, S. and Fu, N. (2022b). Bridging the gap: why, how and when HR analytics can impact organizational performance. *Management Decision, 60*(13), 25-47. https://doi.org/10.1108/MD-12-2020-1581

McCartney, S., Murphy, C. and McCarthy, J. (2020). 21st century HR: a competency model for the emerging role of HR analysts. *Personnel Review, 50*(6), 1495-1513. https://doi.org/10.1108/pr-12-2019-0670

Moral-Muñoz, J. A., Herrera-Viedma, E., Santisteban-Espejo, A. and Cobo, M. J. (2020). Software tools for conducting bibliometric analysis in science: An up-to-date review. *El profesional de la información, 29*(1), e290103. https://doi.org/10.3145/epi.2020.ene.03

Peeters, T., Paauwe, J. and Van De Voorde, K. (2020). People analytics effectiveness: developing a framework. *Journal of Organizational Effectiveness: People and Performance, 7*(2), 203-219. https://doi.org/10.1108/JOEPP-04-2020-0071

Pessach, D., Singer, G., Avrahami, D., Ben-Gal, H. C., Shmueli, E. and Ben-Gal, I. (2020). Employees recruitment: a prescriptive analytics approach via machine learning and mathematical programming. *Decision Support Systems, 134*, 113290. https://doi.org/10.1016/j.dss.2020.113290

Polzer, J. T. (2022). The rise of people analytics and the future of organizational research. *Research in Organizational Behavior, 42*, 100181. https://doi.org/10.1016/j.riob.2023.100181

Pongpisutsopa, S., Thammaboosadee, S. and Chuckpaiwong R. (2020). Factors affecting HR analytics adoption: a systematic review using literature weighted scoring approach. *Asia Pacific Journal of Information Systems, 3*(4), 847-878. https://doi.org/10.14329/apjis.2020.30.4.847

Qamar, Y. and Samad, T. A. (2022). Human resource analytics: a review and bibliometric analysis. *Personnel Review, 51*(1), 251-283. https://doi.org/10.1108/PR-04-2020-0247

Ramachandran, R., Babu, V. and Murugesan, V. P. (2024). Human resource analytics revisited: a systematic literature review of its adoption, global acceptance and implementation. *Benchmarking: An International Journal, 31*(7),

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

2360-2390. https://doi.org/10.1108/BIJ-04-2022-0272

Ravina-Ripoll, R., Foncubierta- Rodríguez, M. J. and López-Sánchez, J. A. (2021a). Certification Happiness Management: an integral instrument for human resources management in post-COVID-19 era. *International Journal of Business Environment*, *12*(3), 287-299. https://doi.org/10.1504/IJBE.2021.116606

Ravina-Ripoll, R., Núñez-Barriopedro, E., Almorza-Gomar, D. and Tobar-Pesantez, L. B. (2021b). Happiness management a culture to explore from brand orientation as a sign of responsibility and sustainable production. *Frontiers in Psychology*, *12*, 3243. https://doi.org/10.3389/fpsyg.2021.727845.

Ravina-Ripoll, R., Galván-Vela, E., Popescu, C. R. G. and Ahumada-Tello, E. (2023a), Guest editorial: Exploring happiness in the workplace as an essential theme for developing managers post-pandemic. *Journal of Management Development*, *42*(6), 421-424. https://doi.org/10.1108/JMD-07-2023-512

Ravina-Ripoll, R., Galván-Vela, E., Sorzano-Rodríguez, D. M. and Ruiz-Corrales, M. (2023b). Mapping intrapreneurship through the dimensions of happiness at work and internal communication. *Corporate Communications: An International Journal, 28*(2), 230-248. https://doi.org/10.1108/CCIJ-03-2022-0037

Ravina-Ripoll, R., Marchena-Dominguez, J. and Montañés-Del-Río, M. Á. (2019a). Happiness management in the age of industry 4.0. *Retos: Revista de Ciencias Administrativas y Económicas, 9*(18),189-202. https://doi.org/10.17163/ret.n18.2019.01

Ravina-Ripoll, R., Tobar-Pesantez, L. B. and Marchena-Dominguez, J. (2019b). *Happiness management: a lighthouse for social wellbeing, creativity and sustainability*, Peter Lang, Bern, Berlin, Bruxelles, New York, Oxford, Warszawa, Wien. http://dx.doi.org/10.3726/b15813

Ravina-Ripoll, R., Villena-Manzanares, F. and Gutiérrez-Montoya, G. A. (2017). Una aproximación teórica para mejorar los resultados de innovación en las empresas desde la perspectiva del "Happiness Management". *Retos. Revista de Ciencias de la Administración y Economía, 7*(14), 113-129. http://dx.doi.org/10.17163/ret.n14.2017.06

Robbins, S. P. and Judge, T. A. (2018). *Organizational behavior (What's new in management)*. Pearson, USA. 18th ed.

Ruiz-Rodríguez, R., Ortiz-de-Urbina-Criado, M. and Ravina-Ripoll, R. (2023). Neuroleadership: a new way for happiness management. *Humanities and Social Sciences Communications*, *10*(139), 1-14. https://doi.org/10.1057/s41599-023-01642-w

Ruiz-Rodríguez, R., Ortiz-de-Urbina-Criado, M. and Ravina-Ripoll, R. (2024). Happy-Ne-R leadership for companies in emerging economies. *International Journal of Happiness and Development*, *Online first articles*. https://doi.org/10.1504/IJHD.2024.10064437

Sánchez-Bayón, A. (2020). Una historia de RR.HH. and su transformación digital: Del fordismo al talentismo y la gestión de la felicidad. *Revista de la Asociación Española de Especialistas en Medicina del Trabajo*, *29*(3), 177-256. https://goo.su/JBF9b

Singh, T. and Malhotra, S. (2020). Workforce analytics: increasing managerial efficiency in human resource. *International Journal of Scientific and Technology Research*, *9*(1), 3260-3266. https://bit.ly/3MktvtX

Singh, S. and Muduli, A. (2021). Factors influencing information sharing intention for human resource analytics. *Economic Studies Journal, 3*, 115-133. https://bit.ly/3WYDD0l

Sripathi, K. and Madhavaiah, A. (2018). Are HR professionals ready to adopt HR analytics? A study on analytical skills of HR professionals. *Journal of Advance Research in Dynamical & Control Systems, 10*(08-Special Issue), 303-308. https://bit.ly/3z2jtKT

Stahlschmidt, S. and Stephen, D. (2020). *Comparison of Web of Science, Scopus and Dimensions databases.* KB Forschungspoolprojekt 2020. https://bit.ly/474bs4H

Sternitzke, C. and Bergmann, I. (2009). Similarity measures for document mapping: a comparative study on the level of an individual scientist. *Scientometrics*, *78*(1), 113-30. https://doi.org/10.1007/s11192-007-1961-z

Sung, S. and. and Choi, J. N. (2014). Multiple dimensions of human resource development and organizational performance. *Journal of Organizational Behavior, 35*(6), 851-870. https://doi.org/10.1002/job.1933

Thakral, P., Srivastava, P. R., Dash, S. S., Jasimuddin, S. M. and Zhang, Z. (2023). Trends in the thematic landscape of HR analytics research: a structural topic modeling approach. *Management Decision, 61*(12), 3665-3690. https://doi.org/10.1108/MD-01-2023-0080

Vargas, R., Yurova, Y. V., Ruppel, C. P., Tworoger, L. C. and Greenwood, R. (2018). Individual adoption of HR analytics: a fine-grained view of the early stages leading to adoption.

The International Journal of Human Resource Management, 29(22), 3046-3067. https://doi.org/10.1080/09585192.2018.1446181

Werbel, J. and Balkin, D. B. (2010). Are human resource practices linked to employee misconduct?: a rational choice perspective. *Human Resource Management Review, 20*(4), 317-326. https://doi.org/10.1016/j.hrmr.2009.10.002

Wiblen, S. and Marler, J. H. (2021). Digitalised talent management and automated talent decisions: the implications for HR professionals. *The International Journal of Human Resource Management, 32*(12), 2592-2621. https://doi.org/10.1080/09585192.2021.1886149

Wirges, F. and Neyer, A. K. (2023). Towards a process-oriented understanding of HR analytics: implementation and application. *Review of Managerial Science, 17*, 2077-2108. https://doi.org/10.1007/s11846-022-00574-0

Yoon S. W., Han S.-H. and Chae, C. (2023). People analytics and human resource development – research landscape and future needs based on bibliometrics and scoping review. *Human Resource Development Review, 23*(1), 30–57. https://doi.org/10.1177/15344843231209362

Zeidan, S. and Itani, N. (2020). HR analytics and organizational effectiveness. *International Journal on Emerging Technologies, 11*(2), 683-688. https://bit.ly/3XjkN5w

Zubac, A., Dasborough, M., Hughes, K., Jiang, Z., Kirkpatrick, S., Martinsons, M. G., Tucker, D. and Zwikael, O. (2021). The strategy and change interface: understanding “enabling” processes and cognitions. *Management Decision, 59*(3), 481-505. https://doi.org/10.1108/MD-03-2021-083

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Retos
Revista de Ciencias de Administración y Economía

october 2024-march 2025
pp. 233-254
https://doi.org/10.17163/ret.n28.2024.04

Employee satisfaction and retention: social marketing and happiness

Satisfacción y retención de empleados: marketing social y felicidad

Araceli Galiano-Coronil
Professor at Universidad de Cádiz, Spain
araceli.galiano@gm.uca.es
https://orcid.org/0000-0003-2270-0924

Sofía Blanco-Moreno
Professor at Universidad de León, Spain
sblanm@unileon.es
https://orcid.org/0000-0001-9959-6876

Received on: 14/07/24 **Revised on:** 01/08/24 **Approved on:** 19/08/24 **Published on:** 01/10/24

Abstract: this research analyses the critical factors influencing employee satisfaction and retention in the context of the Great Resignation by exploring the key organizational elements that significantly impact employee contentment and loyalty. The justification for this study lies in the need for organizations to understand and address the issues leading to high turnover rates and employee dissatisfaction, which have been exacerbated by recent global workforce changes. The main objectives are to identify the key factors that contribute to employee satisfaction and to provide insights into how organizations can enhance their work environments, career growth opportunities, and management practices to retain talent. The methodology involves a semantic network analysis of 138,764 employee reviews from 136 companies, collected via Glassdoor between 2021 and 2023. These reviews were analyzed using the Semantic Networks Tool to identify recurring themes related to work environment, career growth, workload, and management practices. The main results indicate that both current and former employees highly value a supportive and positive work environment and career growth opportunities. However, significant disadvantages include overwork, long hours, and poor management practices. The study highlights that the critical factors influencing employee satisfaction and retention include a positive work environment, opportunities for career growth, and effective management practices.

Keywords: Glassdoor, semantic network analysis, social marketing, satisfaction, retention, happiness management, work environment, social marketing.

Resumen: esta investigación analiza los factores críticos que influyen en la satisfacción y retención de los empleados en el contexto de la Gran Renuncia, explorando los elementos organizacionales clave que impactan significativamente en la satisfacción y la lealtad de los empleados. Existe la necesidad de que las organizaciones comprendan los problemas que conducen a altas tasas de rotación, insatisfacción y abandono de los empleados. Se identifican los factores clave que contribuyen a la satisfacción de los empleados, proporcionando información sobre cómo las organizaciones pueden mejorar sus entornos de trabajo, oportunidades de crecimiento profesional y prácticas de gestión para retener el talento. La metodología implica un análisis de redes de 138 764 opiniones de empleados de 136 empresas, publicadas en Glassdoor entre 2021 y 2023. Estas reseñas se analizaron mediante una herramienta de redes semánticas que permitió identificar temas recurrentes relacionados con el entorno laboral, el crecimiento profesional, la carga de trabajo y las prácticas de gestión. Los principales resultados indican que tanto los empleados actuales como los exempleados valoran mucho un ambiente de trabajo positivo y de apoyo, y oportunidades de crecimiento profesional. Sin embargo, las desventajas que señalan incluyen el exceso de trabajo, las largas jornadas y las malas prácticas de gestión. El estudio destaca que los factores críticos que influyen en la satisfacción y la retención de los empleados incluyen un ambiente positivo, oportunidades de crecimiento y prácticas eficaces.

Palabras claves: Glassdoor, análisis de redes, marketing social, satisfacción, retención, felicidad, ambiente de trabajo, marketing social.

Suggested citation: Galiano-Coronil, A. and Blanco-Moreno, S. (2024). Employee satisfaction and retention: social marketing and happiness. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 233-254. https://doi.org/10.17163/ret.n28.2024.04

Introduction

In the era of the Great Resignation, organizations worldwide are compelled to reassess their management and leadership models as unprecedented numbers of employees voluntarily leave their jobs. This phenomenon has had significant implications for the global workforce. According to a report *World Employment and Social Outlook: Trends 2022*, by the International Labour Organization (ILO), the Great Resignation has led to a reduction in the global workforce by approximately 4.3% in 2021 (ILO, 2022). Furthermore, the surge in voluntary resignations has exacerbated talent shortages, particularly in industries like apparel retail, management consulting, internet and software, and fast food, creating critical challenges for organizational sustainability (Massachusetts Institute of Technology, 2022). These statistics underscore the urgent need for organizations to develop strategies that not only attract but also retain their workforce by fostering environments conducive to employee satisfaction and engagement.

The recent upheaval, characterized by a significant number of employees voluntarily leaving their jobs, underscores the necessity for businesses to foster environments that not only attract but also retain their workforce. This phenomenon has highlighted the pivotal role of happiness management and social responsibility in crafting successful organizational strategies that respond to the demands of a competitive, globalized market (Ravina-Ripoll *et al.*, 2017).

There is academic research that highlights the complex interaction between employee happiness, organizational culture and leadership in the context of the Great Resignation. It is therefore increasingly clear that the pursuit of corporate happiness and responsible governance is not simply a strategic advantage but a fundamental necessity (Cuesta-Valiño *et al.*, 2023). For example, theories of social responsibility and happiness management are crucial to exploring new avenues of corporate governance that ultimately lead to more competitive and sustainable business practices in a rapidly evolving global landscape (Reyes-Ramírez *et al.*, 2022).

The theories of social responsibility and happiness management are central to modern business practices, especially in the context of the increasing awareness of corporate ethics and employee well-being (Gutiérrez-Rodríguez *et al.*, 2023). Social responsibility refers to the idea that businesses should operate in ways that enhance society and the environment rather than contribute negatively to them. This concept extends beyond philanthropy and compliance; it integrates into core business operations intending to make a positive impact on social, economic, and environmental factors.

Happiness management, often referred to as employee well-being or wellness management, focuses on the strategies and practices that prioritize the psychological and emotional well-being of employees (Salvador-Moreno *et al.*, 2021). This theory is based on the understanding that happy employees are more productive, loyal, and motivated, which can significantly enhance organizational performance.

Combining social responsibility with happiness management can create a powerful synergy that benefits both the organization and its employees. For instance, a company that adopts eco-friendly practices not only contributes positively to the environment but can also boost employee morale and pride in their workplace. Similarly, social initiatives such as community volunteering provide personal fulfilment for employees and promote a positive corporate image. In the context of the Great Resignation, these theories are particularly relevant. Businesses that adopt responsible practices and focus on employee happiness are more likely to attract and retain top talent, sustain long-term profitability, and foster a resilient organizational culture. This integrated approach not only addresses the immediate needs of employees and society but also sets the stage for enduring success in a competitive business environment.

Analysing Glassdoor employee reviews offers invaluable insights into how effectively companies are implementing the theories of social responsibility and happiness management. This platform serves as a direct line to employee sentiment and organizational culture, reflecting real-time feedback on corporate practices and their impact on

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

employee satisfaction and retention. Studies have demonstrated that employee reviews can significantly influence organizational reputation and attract potential talent (Long and Thean, 2011). For example, a positive correlation has been found between constructive feedback in reviews and improvements in organizational practices, which in turn boost job satisfaction and reduce turnover intentions (Klotz and Bolino, 2016). Thus, by closely monitoring and analysing employee feedback on these platforms, organizations can gauge the effectiveness of their governance models and make necessary adjustments to align with the principles of social responsibility and happiness management. This not only enhances their competitive edge but also ensures sustainability in a business landscape that is increasingly driven by ethical considerations and employee well-being.

While considerable research has explored various aspects of employee well-being, organizational culture, and management practices, there is a notable gap in the literature when it comes to comprehensively linking these factors with long-term organizational success, particularly in the context of significant global workforce changes like the Great Resignation. Most studies have examined employee well-being and organizational outcomes in isolation, failing to consider the interconnected nature of these variables and their combined impact on organizational resilience and sustainability (Aguinis and Glavas, 2012; Cameron *et al.,* 2011). Additionally, existing research often overlooks the role of integrated strategies that combine social responsibility with happiness management to foster an environment conducive to both employee satisfaction and retention. This study addresses these gaps by providing an integrated analysis that not only examines the critical factors influencing employee satisfaction and retention but also demonstrates how these factors are essential for achieving long-term organizational success in a rapidly evolving global landscape.

Furthermore, research indicates that social marketing strategies can positively influence employee satisfaction and organizational outcomes. While social marketing primarily focuses on influencing behaviour to improve societal well-being, particularly health-related issues, its communication strategies can address various social problems (Del Rosario Ángel *et al.*, 2024).). Overall, these studies emphasize the importance of internal and social marketing in enhancing employee satisfaction and organizational performance. Internal marketing practices have been shown to significantly impact employee satisfaction, commitment, and productivity in retail and commercial sectors. These practices create a work environment that employees highly value, contributing to job satisfaction (Lorenzo *et al.*, 2019).

The purpose of this study is to examine how elements of social responsibility and happiness management can be effectively integrated into corporate strategies to enhance employee satisfaction and retention, particularly during periods of high turnover such as the Great Resignation. Specifically, this research aims to achieve the following objectives:

- To explore the integration of theories: to explore how social marketing, theories of social responsibility and happiness management can be synergistically applied within organizations to create a positive and sustainable work environment.
- To identify the critical factors: to identify and analyse the key factors influencing employee satisfaction and retention, with a focus on work environment, career growth opportunities, and management practices.
- To assess the impact on organizational success: to assess how the integration of these elements into corporate strategies can mitigate turnover rates and contribute to long-term organizational success in a competitive global market.

By clearly articulating these objectives, this study seeks to provide a comprehensive framework that not only addresses the immediate challenges of employee retention but also contributes to the broader discourse on sustainable corporate practices in the context of global workforce changes.

Literature review

In this section, we provide an overview of the literature pertinent to the critical factors influencing employee satisfaction and retention, especially in the context of the Great Resignation. The literature review is structured into three key subindexes: The Great Resignation and Employee Satisfaction, Theories of Social Responsibility and Happiness Management, and Social Marketing and Social Internal Marketing in an Organizational Environment. Each subindex addresses different aspects of employee retention strategies, examining various theories, empirical studies, and practical applications. This framework allows for a comprehensive analysis of the multifaceted approaches necessary to improve employee satisfaction and retention, highlighting the interconnected nature of organizational culture, leadership, and marketing practices in fostering a supportive and engaging workplace environment.

The Great resignation and the employee satisfaction

Research has increasingly pointed to the profound impact of organizational culture and leadership styles on employee satisfaction and their subsequent decisions to stay with or leave an organization. For instance, Klotz and Bolino (2016) explore different resignation styles, highlighting how the nature of an employee's relationship with their organization can dictate their exit approach, which in turn affects the organizational climate and the morale of remaining staff. Furthermore, the study by Rachman *et al.* (2022) emphasizes the significant roles of job satisfaction and organizational commitment in mediating employee intentions to quit, suggesting that enhancing these aspects can mitigate turnover rates.

The implications of management practices on employee outcomes are also evident in the work of Singh (2018), who discusses the positive correlations between career management practices and career satisfaction. This study indicates that well-structured career management can significantly decrease employees' intentions to leave, thus promoting a stable workforce. Additionally, MacIntosh and Doherty (2010) argue that the alignment of organizational culture with employee values plays a critical role in enhancing job satisfaction and reducing turnover intentions, thereby advocating for leadership that is both transformative and responsive to employee needs.

The strategic application of transformational leadership is further explored in the context of Generation Y employees in the oil and gas industry by Jauhar *et al.* (2017), who find that leadership styles significantly affect job satisfaction, which in turn influences turnover intentions. This underscores the necessity for leaders to adapt their styles to meet the expectations and values of a diverse workforce, particularly in industries experiencing high turnover rates.

In light of the Great Resignation, the role of authentic leadership has been increasingly recognized as critical in fostering organizational loyalty and job security, which are key factors in enhancing employee retention and satisfaction (Chiang-Vega *et al.*, 2021). Olaniyan and Hystad (2016) demonstrate that authentic leadership can significantly lower job insecurity and intentions to quit by fostering a work environment characterized by trust and integrity.

The cultural dimensions of resignations, as discussed by Van *et al.* (2021), provide a unique insight into how organizational ethics and leadership integrity impact employee perceptions and happiness. Such cultural considerations are pivotal in shaping the policies that govern employee engagement and resignation.

Moreover, the critical analysis of turnover intentions by Suprani *et al.* (2022) sheds light on how job satisfaction and organizational commitment serve as mediators in the relationship between employee well-being and turnover intentions. This suggests that improving job satisfaction can significantly contribute to reducing turnover rates, thus enhancing organizational stability.

The theories of social responsibility and happiness management

The theories of social responsibility and happiness management are pivotal in the context of modern business practices, especially given the challenges highlighted by the Great Resignation. This phenomenon has underscored the necessity for organizations to rethink their management and leadership models to foster environments that not only attract but also retain employees. As discussed in the introduction of this special issue, the Great Resignation has brought to light the critical importance of corporate happiness and organizational justice in developing comprehensive strategic management. Companies must now cultivate flexible and innovative ecosystems that promote employee well-being to remain competitive in a globalized market (Klotz and Bolino, 2016; Rachman *et al.*, 2022).

Social responsibility in business goes beyond philanthropy and compliance, integrating into core operations to positively impact social, economic, and environmental factors. This approach aligns with the concept of stakeholder theory, which posits that businesses must consider the interests of all stakeholders, including employees, shareholders, the community, and the environment (Freeman, 2010). By balancing profit with societal challenges, organizations can develop ethical strategies that enhance their reputation and operational sustainability (Porter and Kramer, 2006). Corporate citizenship extends this concept by viewing companies as societal "citizens" expected to promote human rights, democracy, and environmental sustainability. This perspective encourages businesses to take active roles in addressing global issues such as climate change, poverty, and inequality (Matten and Crane, 2005).

Happiness management, also known as employee well-being or wellness management, focuses on strategies and practices that prioritize the psychological and emotional well-being of employees. This theory is grounded in the understanding that happy employees are more productive, loyal, and motivated, which can significantly enhance organizational performance (Seligman, 2002; Cameron *et al.*, 2011). Positive psychology in the workplace, for instance, applies principles of positive psychology to improve job satisfaction, resilience, and overall workplace happiness. Techniques such as gratitude exercises, strength-based tasks, and fostering a positive work environment are common practices (Diener *et al.*, 2015). Ensuring that employees are engaged and involved in organizational matters through transparent communication and inclusive decision-making can lead to higher job satisfaction and lower turnover rates (Kahn, 1990; Rodas *et al.*, 2022).

Combining social responsibility with happiness management creates a powerful synergy that benefits both the organization and its employees. For instance, a company that adopts eco-friendly practices not only contributes positively to the environment but also boosts employee morale and pride in their workplace (Robertson and Barling, 2013). Similarly, social initiatives such as community volunteering provide personal fulfilment for employees and promote a positive corporate image. In the context of the Great Resignation, these theories are particularly relevant as businesses that adopt responsible practices and focus on employee happiness are more likely to attract and retain top talent, sustain long-term profitability, and foster a resilient organizational culture (Grant *et al.*, 2007).

Analysing employee reviews on platforms like Glassdoor offers invaluable insights into how effectively companies are implementing these theories. These reviews serve as a direct line to employee sentiment and organizational culture, reflecting real-time feedback on corporate practices and their impact on employee satisfaction and retention. Studies have demonstrated that constructive feedback in reviews can significantly influence organizational reputation and attract potential talent (Long and Thean, 2011). By closely monitoring and analysing employee feedback, organizations can gauge the effectiveness of their governance models and make necessary adjustments to align with the principles of social responsibility and happiness management. This not only enhances their competitive edge but also ensures sustainability in a business landscape increasingly driven by ethical considerations and employee well-being (Aguinis and Glavas, 2012).

Social marketing and internal social marketing in the organizational environment

Social marketing is a marketing discipline that aims to influence the target audience to adopt or maintain a behaviour to improve both the individual well-being of people and that of society (Andreasen, 1994).

However, social marketing studies have generally paid little attention to organizational context (Smith and O'Sullivan, 2012). In this environment, approaches based on concepts such as internal marketing or internal social marketing have been used; however, although they may seem similar to social marketing, they are different. Internal marketing tries to show the importance of relationships between employees and the organization in the search for competitive advantages in companies. It can be defined as the company's effort to know, analyse, understand, and respond to the needs of its customers. Employees (Park and Tran, 2018; Qiu *et al.*, 2022). According to Brennan *et al.* (2015), social and internal marketing concepts can be combined, giving rise to the term internal social marketing. This marketing discipline applies internal marketing to influence the behaviour of employees in the organizational environment and to achieve social rather than commercial objectives. In other words, internal social marketing uses social marketing to motivate and coordinate employee behaviours regarding social issues in an organizational context (Previte and Russell-Bennett, 2014; Rafiq and Ahmed, 2000; Wells *et al.*, 2016). The authors above have considered the application of the concept of internal social marketing to achieve sustainable behaviours in the work environment related to both pro-environmental attitudes, such as recycling and saving resources, as well as healthy behaviours, such as promoting adequate nutrition in the work environment. These behaviours are intended to engage and motivate employees within an organization to improve employee satisfaction, commitment, and overall performance, improving organizational success and customer satisfaction. Based on this approach, González *et al.* (2020) carried out a study on cooperatives in Ecuador. They identified several dimensions to promote employee well-being and align their goals with organizational objectives: Value exchange, internal market segmentation (employees), internal communication, leadership, and family conciliation. The same author found that successful internal marketing strategies include clear communication of organizational objectives, continuous training and development programs, and initiatives that balance work and family life. These strategies help create a motivated workforce aligned with the company's vision and values.

Furthermore, internal social marketing significantly influences service innovation within organizations. By meeting employee needs, companies can foster an environment conducive to creativity and innovation, leading to better service offerings and competitive advantages (Raeisi *et al.*, 2020). At this point, it is necessary to comment on all of the above, stating that a voluntary behavioural change caused by intrinsic motivation factors can result in positive effects, less resistance from the community, and more likely to persist over time (Geiger *et al.*, 2021).

Comments on Glassdoor and the role of the Great Resignation

Several research has shown how employee reviews on Glassdoor provide insight into resignation and termination practices, which are crucial during periods of major workforce change, such as the Great Resignation. Glassdoor in shaping organizational strategies during periods of substantial workforce changes such as the Great Resignation. Employee feedback online reflects a range of experiences with resignation and dismissal, providing valuable insights into corporate culture and management practices.

On the one hand, the study by Klotz and Bolino (2016) delves into the nuanced nature of how employees resign and its implications for organizational climate and management. Their research uses social exchange theory to analyse the impact of resignation styles on managers and colleagues, revealing that the way employees exit can significantly affect the workplace environment. This understanding is crucial, as the narratives shared on platforms like Glassdoor often highlight these resignation experiences, influencing potential and current employees' perceptions.

On the other hand, Richardson (2001) offers practical guidance on constructive dismissal. This paper explains the importance of handling dismissals properly to avoid legal repercussions and damaging public perception, as reflected in Glassdoor reviews. It underscores the need

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

for transparent and fair termination processes to maintain a positive organizational reputation.

Neaves (2017) investigates in her explorative study which personal reasons behind employee resignations. Neaves finds that discrepancies between employee expectations and organizational realities often lead to resignation, a sentiment frequently expressed in Glassdoor reviews. These insights highlight the importance of aligning organizational practices with employee expectations to enhance retention and satisfaction.

Another research was developed by Karl and Hancock (1999), that analysed the effectiveness of expert advice on termination practices. The study discovers that deviations from recommended practices in conducting dismissals can lead to negative employee experiences, which are often shared on Glassdoor, emphasizing the necessity of adhering to best practices in termination processes to foster a positive end-of-employment experience.

Lastly, the research by Richter *et al.* (2018) shows that how layoffs are conducted profoundly influences employee reactions and subsequent reviews on public forums like Glassdoor. Respectful and considerate layoff processes can mitigate adverse reactions, underlining the importance of maintaining dignity and respect in difficult organizational transitions.

Employee comments on Glassdoor are not just reflections of individual experiences but are indicative of broader organizational practices. They emphasize the practical implications of ethical management and effective communication during the resignation and dismissal processes, particularly during turbulent times like the Great Resignation. This body of research underscores the need for organizations to manage transitions effectively, ensuring a supportive work environment that upholds a positive corporate image amidst significant workforce changes.

Understanding the factors that motivate employees to resign is crucial for organizations aiming to improve retention and manage turnover effectively. The study by Klotz and Bolino (2016) delves into the nature, causes, and consequences of employee resignation styles, emphasizing how the relationships between employees and their organizations or supervisors influence resignation methods. They found that resignation styles significantly impact how managers and coworkers react to an employee's departure, which in turn affects the overall workplace atmosphere. This points to the importance of maintaining positive relational exchanges to mitigate the negative impacts of resignations.

In a related exploration, Klotz and Zimmerman (2015) study the detailed processes employees navigate from planning their exit to their final working day. Their research highlights that individual differences significantly influence how employees handle the resignation process, affecting both their performance during the notice period and the broader organizational dynamics.

Sojan (2023) investigates the broader labour market dynamics, suggesting that movement beyond organizational boundaries and internal labour market rotation are significant factors driving employee turnover. Sojan suggests that strategies such as applying motivational theories and enhancing job satisfaction can effectively reduce turnover.

Further illuminating the importance of career opportunities, Leonardi and Panggabean (2021) examine how perceptions of career advancement opportunities impact organizational commitment and the intention to leave. Their study indicates that positive career prospects can significantly diminish employees' resignation intentions by reinforcing their commitment to the organization.

Lastly, Jia and Zhang (2017) focus on the influence of salary standards on resignation rates, particularly within the banking sector. Their findings underscore the critical role of competitive compensation structures in retaining employees, particularly in industries with high attrition rates.

Methodology

Sample, data collection and descriptive analysis

Glassdoor is a widely used platform that provides a comprehensive look at various jobs and companies through user-generated content. It allows current and former employees to submit anonymous reviews about their workplaces, offering insights into company culture, salaries, benefits, and management practices. Additionally, Glassdoor features job openings, interview questions, and company ratings. This transparency aims to aid job seekers in making informed career decisions and helps employers understand areas for workplace improvement. Glassdoor has become an invaluable resource in the job market ecosystem, but it has different bias, such as self-selection bias and response bias. To mitigate the impact of these biases, several strategies were employed in this study.

Firstly, for this research a total of 138,764 reviews were collected from 136 companies over the period from 2021 to 2023. The data were collected using web scraping techniques via Octoparse 8 version, tool that allows you to download all user reviews, from the creation of each company's profile on Glassdoor, until the date of download. This tool enabled the downloading of large volumes of structured data, facilitating its cleaning and analysis. The data were organized by rows (each representing an anonymous review) and columns (each detailing characteristics of the reviews such as rating, advantages, disadvantages, etc.), making it ready for subsequent analytical processes. This large dataset helps to balance the extremes and capture a more comprehensive picture of employee sentiment.

Secondly, the sample selection was based on specific criteria to ensure a robust and representative dataset. Only companies with over 10,000 employees were included, ensuring that the reviews represented experiences from large, potentially more structured organizations. The companies selected spanned various sectors including construction, consulting and advisory, consumer goods, financial services, industry, IT, advertising and public relations, healthcare, telecommunications, transportation, and tourism. This diversity aimed to capture a broad spectrum of employee experiences across different industries that are being intensely impacted by the great resignation (Massachusetts Institute of Technology, 2022).

Finally, to understand the key organizational elements that significantly impact employee contentment and loyalty, Glassdoor reviews were divided into four groups prior to semantic network analysis: advantages and disadvantages for both current employees and ex-employees. This classification provides a clear view of the primary themes and sentiments expressed by both groups, highlighting the similarities and differences in their experiences and perceptions.

Descriptive analysis of the data obtained shows that of the 138 64 reviews, 121 838 had the advantages section, and 52 694 disadvantages. Specifically, of the 86 113 employees who shared their review, 76 162 users indicated advantages, and 10 640 disadvantages. Regarding the 52 641 ex-employees who wrote reviews, 45 676 shared the advantages, and 45 676 the disadvantages. The distribution of reviews obtained with web scraping by sector is shown in Table 1.

Table 1

Distributions of the reviews obtained with web scraping by sector

Glassdoor reviews				
Sector	**2021**	**2022**	**2023**	**Total**
Accounting & Tax	8937	15 715	14 308	38 960
Restaurants & Cafes	3449	10 898	11 640	25 987
Computer Equipment	5539	5669	8058	19 266
Business Consulting	1976	2240	1767	5983
Consumer Products Manufacturing	1608	1537	1462	4607
Electronics Manufacturing	520	1419	2193	4132
Biotechnology & Pharmaceuticals	1117	1220	1180	3517
Banking & Lending	1266	1159	1084	3509
Computer Services	1559	1102	730	3391
Internet & Web Services	756	1061	850	2667

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Glassdoor reviews				
Sector	**2021**	**2022**	**2023**	**Total**
Food & Beverage Manufacturing	814	912	843	2569
Hospitals & Healthcare	466	756	1283	2505
Architecture & Engineering	738	686	765	2189
Business Software & Network Solutions	667	832	676	2175
Department Stores, Clothing & Shoe Stores	575	769	682	2026
HR Consulting	512	690	706	1908
Telecommunications Services	742	593	550	1885
Machinery Manufacturing	537	603	504	1644
Hotels & Resorts	590	523	450	1563
Energy & Utilities	499	530	532	1561
Freight Shipping & Transportation	126	167	945	1238
Construction	439	418	366	1223
Medical Product Manufacturing	127	127	881	1135
Asset & Investment Management	362	352	261	975
Transportation Equipment Manufacturing	219	274	297	790
Insurance Companies	223	216	241	680
Real Estate	125	145	149	419
Advertising & Public Relations	86	99	75	260
Total	**34 574**	**50 712**	**53 478**	**138 764**

Semantic network analysis

The analysis conducted for this research utilized a semantic network analysis approach to understand the connections and patterns within employee reviews from Glassdoor.

Semantic network analysis is a powerful method for examining the relationships between different entities. In this context, entities refer to the words and phrases used in employee reviews. By creating a network of these entities, we can visualize and analyse the connections and co-occurrences, providing insights into the main themes and sentiments expressed by employees. The semantic network analysis was performed using the NoCodeFunctions Semantic Networks Tool. This tool is designed to analyse large text corpora by creating semantic networks that illustrate the relationships between terms. The analysis involved several key steps and parameters to ensure the robustness and relevance of the results with text data engineering (Table 2).

Table 2

Key steps on text data engineering for word semantic network analysis

Steps	Explanation	Parameters
Language	The first step in a semantic network analysis is to select the language in which the texts are written, since it facilitates the next step, which is normalization, allowing for better locating plurals and semantic similarities.	English
Normalization	The raw text data was subjected to normalization, a crucial step to standardize the text for further analysis. This process involved converting all text to lowercase to ensure uniformity, removing punctuation, numbers, and special characters that do not contribute to the semantic meaning. Additionally, common stop words (e.g., “the,” “and,” “is”) were removed focus the analysis on meaningful content.	Applied
Minimum word length	To eliminate insignificant words and focus on meaningful content, a minimum word length of 4 characters was set. This parameter helps in excluding common short words that do not contribute significantly to the analysis.	4 characters

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Steps	Explanation	Parameters
Minimum word frequency	The words that appeared less than twice in the dataset were excluded. This threshold helps in filtering out rare terms, ensuring that the analysis focuses on commonly discussed topics and themes.	2 occurrences
Tokenization and length of n-grams	After normalization, the text data was tokenized. Tokenization refers to the process of breaking down the text into individual words or terms (tokens). This step is essential for analysing the frequency and co-occurrence of specific terms within the reviews. The analysis included n-grams (sequences of words) with a maximum length of 4. N-grams help in capturing phrases and multi-word expressions that provide more context and meaning than individual words. For example, "career growth" as a n-gram is more informative than "career" and "growth" analysed separately.	Up to 4 words
Lemmatization	To further refine the tokens, lemmatization was applied. Lemmatization reduces words to their base or root form (lemma), allowing for the grouping of different forms of a word (e.g., "running" and "ran" to "run"). This step helps in consolidating similar terms and improving the accuracy of the semantic analysis. Lemmatization is the process of reducing words to their base or root form. This step is crucial for standardizing different forms of a word, ensuring that variations such as singular/plural and different tenses are considered as the same entity. Lemmatization improves the consistency and clarity of the analysis.	Applied
Pointwise mutual information (PMI)	To identify significant word associations, the Pointwise Mutual Information (PMI) method was employed. PMI measures the association between two words by comparing the probability of their co-occurrence with the probability of their individual occurrences. Higher PMI values indicate stronger associations between terms, which is critical in constructing meaningful semantic networks. PMI is a statistical measure used to identify the association between pairs of words. It helps in highlighting strong connections between terms, which are indicative of significant co-occurrences within the text. Applying PMI to network connections ensures that the network reflects meaningful relationships between words.	Applied
Co-occurrence Analysis	The last step is the co-occurrence analysis. It was performed to identify relationships between key terms in the reviews. This analysis was crucial for understanding the thematic structure of the text data and for constructing the network visualizations used in the study.	Applied

The tool's configuration and the application of these parameters ensured that the analysis focused on significant and meaningful terms, capturing the essence of employee sentiments as expressed in the reviews. The analysis leveraged the concept of co-occurrence, which refers to the frequency with which two or more words appear together in the text. Co-occurrence is a fundamental aspect of semantic network analysis, as it helps in identifying related terms and constructing a network that reflects the underlying structure of the text.[1] By using co-occurrence and PMI, the semantic network analysis tool was able to highlight the key themes and topics discussed by current and former employees. The resulting network maps provided a visual representation of these themes, making it easier to identify patterns and draw insights.

Using these parameters, the tool constructed semantic networks for the reviews. The semantic network analysis was divided into two main categories: reviews from current employees and reviews from former employees. Each category was further classified into advantages and disadvantages.

Results and discussion

The figures presented in this study and shown in this section have been generated from the VOSviewer extension and allow for the visualization of relationships between key terms and themes derived from employee reviews. In these network visualizations, nodes represent specific terms or keywords, while the size of each node indicates the frequency of that term's occurrence in the dataset (Wang *et al.*, 2024). Larger nodes signify terms that appear more frequently and are thus more central to the discussion. The connections,

1 See: https://bit.ly/4eoVUer

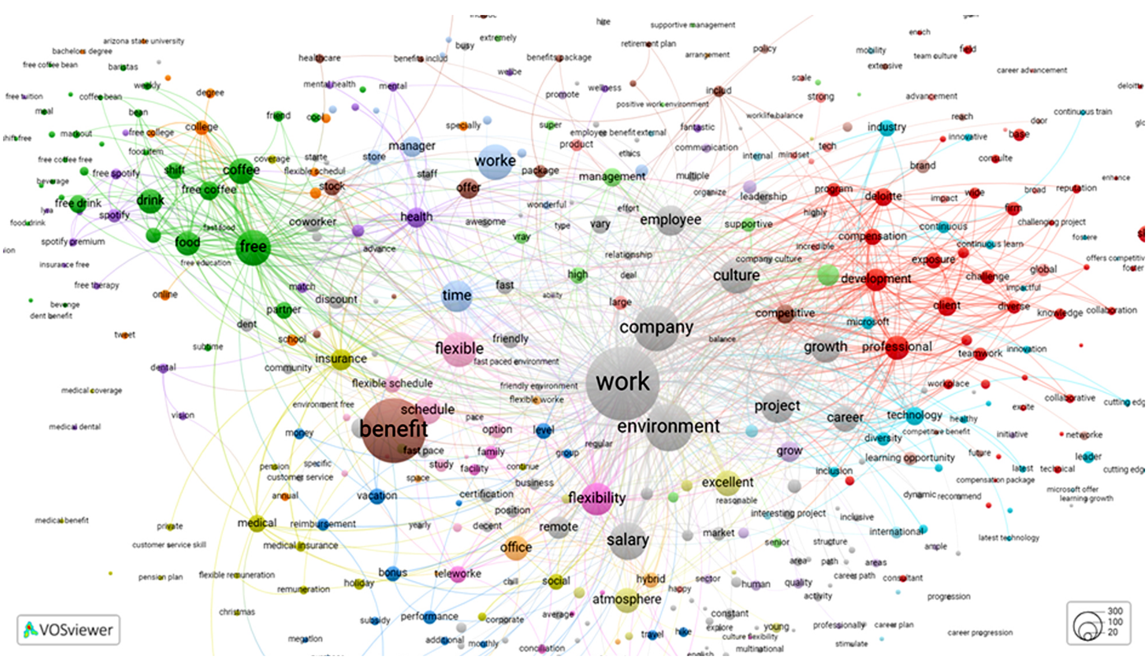
Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

or edges, between nodes illustrate co-occurrences, meaning that the linked terms frequently appear together within the same context. The strength of these connections is depicted by the thickness of the edges; thicker lines represent stronger relationships or higher co-occurrence rates. By examining these visualizations, readers can quickly identify the most prominent topics and how they interrelate, providing a comprehensive overview of the critical factors discussed by employees. This approach allows even non-specialized readers to understand which elements are most influential in shaping employee satisfaction and retention.

For current employees, the reviews frequently highlight a positive work environment as a significant advantage. Terms such as "good working environment," "team," and "positive culture" are prominently mentioned, indicating that these factors play a crucial role in their job satisfaction (Figure 1). The emphasis on team dynamics and a supportive culture underscores the importance of a collaborative and friendly workplace. Opportunities for career advancement and development are also highly valued. Phrases like "career growth," "opportunity," and "learning" are commonly noted, reflecting the importance of professional development and the availability of growth opportunities within the company. Although not as emphasized as the top two advantages, work-life balance remains a significant factor. Terms like "flexible hours" and "work-life balance" indicate that employees appreciate the ability to balance their professional and personal lives, which contributes to their overall satisfaction. Health benefits and insurance are frequently cited as advantages, showing that employees value the tangible perks provided by their employers, which contribute to their sense of security and well-being.

Figure 1

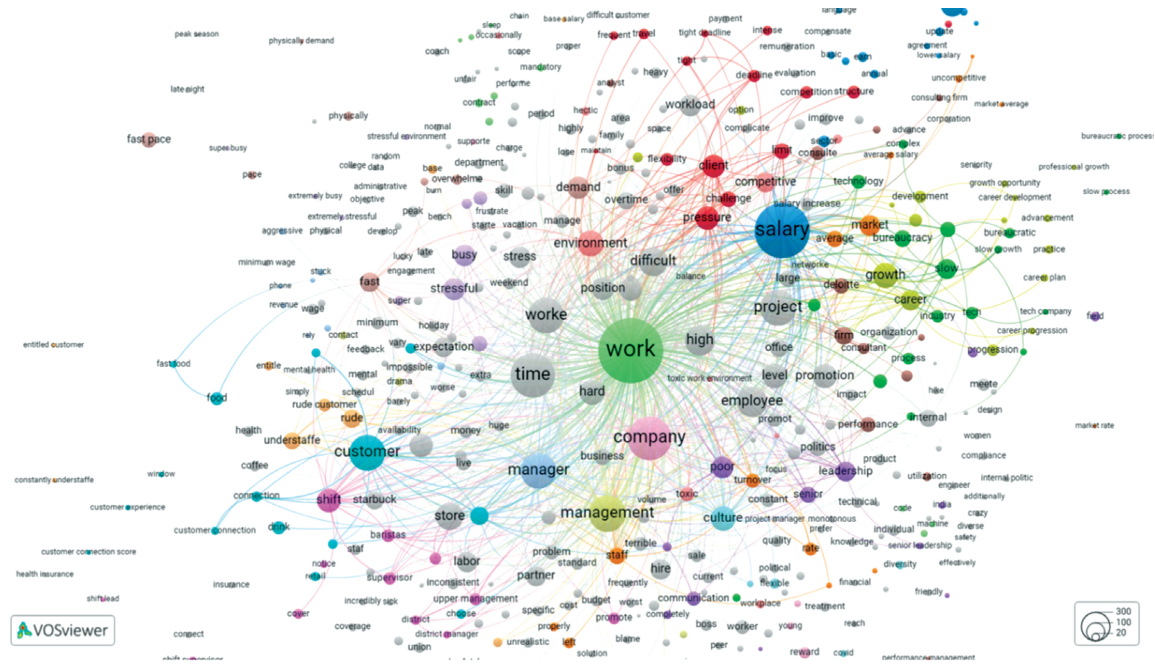
Advantages mentioned by the current employees



However, there are notable disadvantages for current employees as well. A common complaint is the heavy workload, with terms like "overwork" and "overtime" indicating dissatisfaction with the amount of work and long hours required, suggesting that this is a significant stressor (Figure 2). Issues with management practices are also a major concern. Words such as "poor management" and "micromanagement" suggest dissatisfaction with leadership and the way employees are managed. Concerns about compensation are highlighted by terms like "low pay" and "salary," indicating dissatisfaction with financial remuneration, which could be a potential risk factor for employee turnover. Phrases like "no promotion" and "dead-end job" suggest frustration with limited career growth opportunities, indicating that despite appreciating current opportunities, some employees feel stagnated in their roles.

Figure 2

Disadvantages mentioned by the current employees



For ex-employees, a good work environment and supportive team are also highly valued, similar to current employees (Figure 3). The emphasis on these terms indicates that these were significant positive aspects of their employment experience. Learning opportunities and career advancement are commonly mentioned advantages, suggesting that these factors were valued even though they eventually left the organization, indicating that career development was an important consideration. Terms like "flexible schedule" and "work from home" are more prominently mentioned by ex-employees, indicating that flexibility was highly appreciated and perhaps even a deciding factor in their tenure. Health benefits and insurance are also noted as significant advantages, reflecting the ongoing importance of these perks.

Disadvantages for ex-employees are notably similar to those for current employees. Issues with workload, such as "overwork" and "long hours," are frequently mentioned, suggesting that excessive workload was a contributing factor to their departure (Figure 4). Issues with management, such as "bad management" and "favouritism," are strongly highlighted, indicating that poor leadership and perceived unfairness were significant reasons for leaving. Complaints about "low pay" and "no bonus" are significant, although slightly less emphasized compared to current employees, reflecting ongoing concerns about financial compensation. The lack of career growth opportunities is more heavily emphasized by ex-employees, with phrases like "no career growth" and "limited opportunities" being prominent, suggesting that a lack of advancement prospects was a major reason for their departure.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Figure 3

Advantages mentioned by the former employees

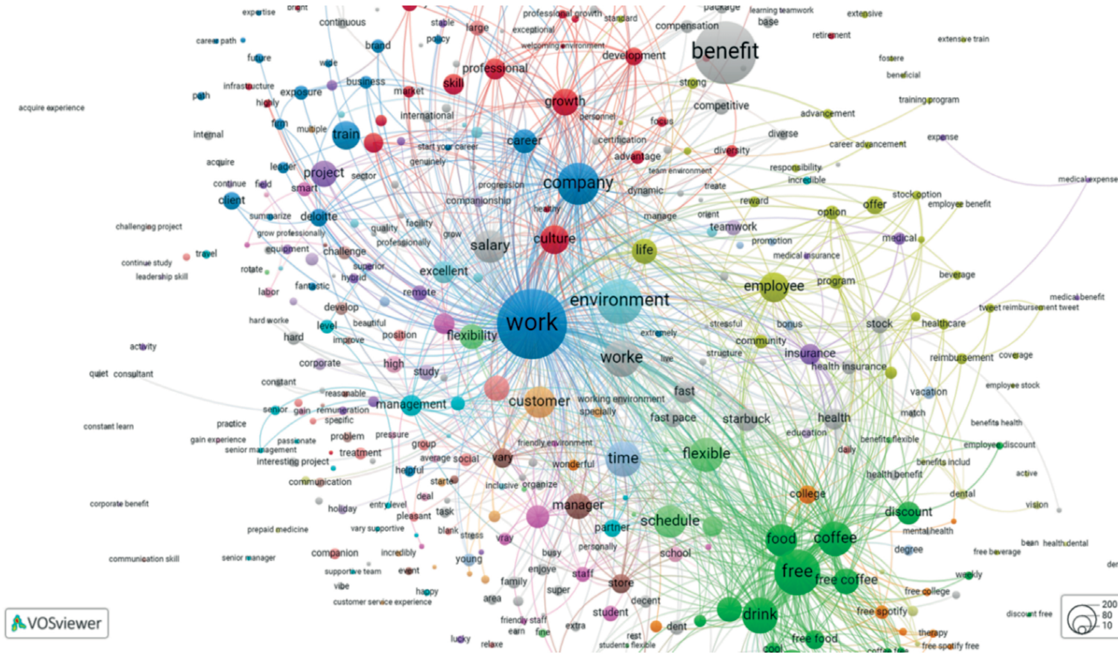


Table 3 highlights several key insights. Both current and former employees value a positive work environment and career growth opportunities, indicating that these are critical areas for employee satisfaction and retention. Workload and management issues are significant concerns for both groups, suggesting that these areas need improvement to enhance employee satisfaction and reduce turnover. Current employees emphasize compensation issues more, while former employees highlight the lack of career advancement more prominently, indicating different factors influencing their current status and reasons for leaving. Flexibility is a stronger advantage for former employees, indicating its importance in retention and satisfaction.

Table 3

Classification of reviews by advantages and disadvantages: current employees vs. former os

		Current employees	Former employees
Advantages	**Work-Life balance**	Phrases like "flexible hours" and "work-life balance" highlight this aspect.	"Flexible schedule" and "work from home" are appreciated by former employees.
	Work environment	Topics like "good working environment," "team," and "positive culture" are prominent.	Similar to current employees, former employees value a "good working environment" and "supportive team."
	Career growth	Terms such as "opportunity," "career growth," and "learning" indicate that employees value opportunities for advancement and development.	Terms like "learning opportunities" and "career advancement" are common.
	Benefits	Terms like "health benefits" and "insurance" show that employees appreciate the benefits provided by their employers.	Former employees also mention "health benefits" and "insurance" as advantages.

		Current employees	Former employees
Disadvantages	**Workload**	Issues like "overwork" and "overtime" indicate dissatisfaction with workload.	Similar to current employees, former employees mention "overwork" and "long hours."
	Lack of advancement	Phrases like "no promotion" and "dead-end job" indicate concerns about career growth.	"No career growth" and "limited opportunities" are concerns.
	Management	Topics like "poor management" and "micromanagement" suggest dissatisfaction with leadership.	Issues with "bad management" and "favouritism" are prominent.
	Compensación	Los términos como "sueldo bajo" y "salario" resaltan las preocupaciones sobre la compensación.	Resultan comunes las quejas sobre "baja paga" y "sin bonificación".

Addressing these issues by improving management practices, providing better career growth opportunities, and ensuring fair compensation can enhance employee satisfaction and reduce turnover. Additionally, offering flexible work arrangements can significantly improve employee retention and attract top talent.

Figure 4

Disadvantages mentioned by the former employees

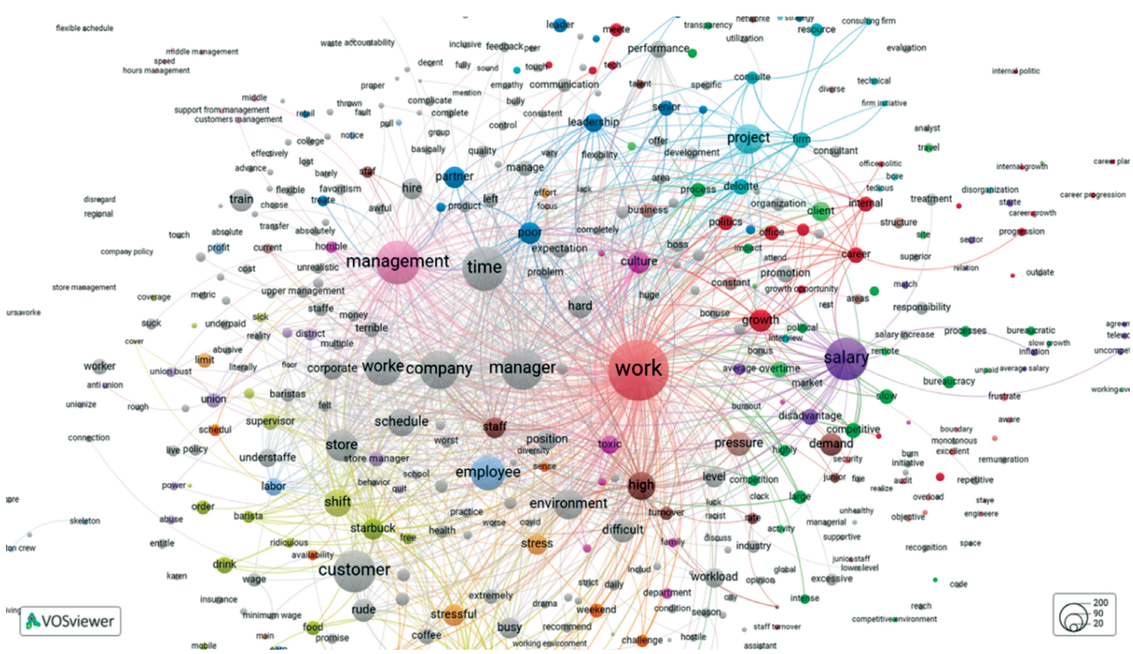


Table 4 categorizes the similarities and differences between current and former employees' reviews provides a detailed look into their experiences and perceptions. Both groups value a positive work environment, highlighting terms such as "good working environment," "supportive team," and "positive culture." This indicates that a supportive and collaborative workplace is crucial for employee satisfaction across the board. Additionally, career growth opportunities are highly appreciated by both current and former employees, with frequent mentions of "career growth," "opportunity," and "learning." This shows the importance of providing clear paths for advancement and professional development to maintain employee engagement and retention.

However, there are notable differences in how these groups perceive work-life balance and fle-

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

xibility. Current employees tend to emphasize work-life balance more, mentioning terms like "flexible hours" and "work-life balance" as significant advantages. This suggests that achieving a balance between professional and personal life is a key factor for their satisfaction and a reason they might choose to stay with the company. On the other hand, former employees highlight flexibility more strongly, with terms like "flexible schedule" and "work from home" being prominent. This indicates that flexible working conditions were highly valued and that their absence might have been a factor in their decision to leave.

Compensation is another area where perceptions differ between the two groups. Current employees seem more focused on concerns about salary and lack of bonuses, which are frequently mentioned disadvantages. This might indicate dissatisfaction with financial remuneration that could potentially lead to attrition if not addressed. Former employees also mention compensation issues but tend to emphasize the lack of career growth more heavily. Terms like "no career growth" and "limited opportunities" are significant, suggesting that a lack of advancement prospects was a major reason for their departure.

Workload and management issues are significant concerns for both groups. Both current and former employees frequently highlight overwork and long hours as disadvantages, indicating a need for companies to address work-life balance more effectively. Issues with management, such as poor leadership and favouritism, are common complaints among both groups, underscoring the importance of effective leadership and fair treatment in the workplace. These shared concerns suggest that improving management practices and addressing workload issues could enhance employee satisfaction and reduce turnover.

Table 4

Comprarative analysis of similarities and differences in the reviews: current employees vs. former

Similarities	Differences
Work environment: Both current and former employees value a good working environment, supportive teams, and a positive culture.	**Work-Life balance:** Current employees emphasize work-life balance more as an advantage, while former employees highlight flexibility more. Current employees highlight work-life balance more frequently as an advantage, with slightly larger balls for related terms. This might indicate that current employees value their current work-life balance, which could be a reason they stay.
Career growth: Opportunities for advancement and learning are appreciated by both groups.	**Compensation:** Current employees seem more focused on concerns about salary and lack of bonuses, while former employees also mention these but emphasize no career growth more heavily. Current employees emphasize compensation issues more, which might indicate dissatisfaction that could potentially lead to attrition if not addressed.
Workload: Both groups highlight overwork and long hours as disadvantages.	**Flexibility:** Former employees emphasize flexibility more strongly as an advantage, with larger balls for terms like "flexible schedule" and "work from home." This indicates that former employees particularly valued flexible working conditions, and their absence might have been a factor in their decision to leave.
Management: Issues with management, such as poor leadership and favouritism, are common complaints.	**Lack of advancement:** Former employees highlight the lack of advancement and limited opportunities more prominently, with larger balls for related terms. This suggests that former employees left due to stagnation in their career growth.

Finally, Table 5 ranking the reasons for employees leaving versus staying provides valuable insights into the key factors influencing these decisions. For employees who decide to stay, a supportive and positive work environment stands out as a crucial factor. Current employees frequently highlight the importance of team dynamics and a positive culture, suggesting that a harmonious and collaborative workplace is a significant reason for their continued employment. Additionally, opportunities for career growth and learning are prominently mentioned. This indicates that access to professional development and advancement opportunities plays a pivotal role in retaining employees. Furthermore, the balance between work and personal life is often cited as a reason for staying, emphasizing the importance of work-life balance in employee satisfaction and retention.

On the other hand, the reasons for leaving are starkly different. Lack of career advancement is a primary reason cited by former employees. Terms such as "no career growth" and "limited opportunities" are frequently mentioned, indicating that employees are likely to leave if they feel their professional growth is stagnated. Management issues are also a significant factor contributing to attrition. Complaints about "bad management" and "favouritism" suggest that poor leadership and perceived unfairness can drive employees to seek opportunities elsewhere. Additionally, workload is a major concern among those who leave. Frequent mentions of "overwork" and "long hours" indicate that excessive workload can lead to burnout, prompting employees to resign.

Table 5

Ranking of reasons for employees´s retention vs. attrition

Reasons for leaving vs. reasons to stay	
Leaving	**Stay**
Lack of advancement: Former employees often cite "no career growth" and "limited opportunities" as reasons for leaving, indicating that a lack of career progression can lead to attrition.	**Work environment:** Both current and former employees appreciate a supportive and positive work environment, but current employees particularly emphasize "team" and "positive culture," indicating that a good work environment is a reason for staying.
Management issues: Complaints about "bad management" and "favouritism" suggest that poor leadership contributes to employees leaving.	**Career growth:** Opportunities for advancement and learning are highlighted as reasons for staying by current employees.
Workload: Overwork and long hours are common complaints among former employees, suggesting that excessive workload can lead to burnout and departures.	**Work-life balance:** Current employees frequently mention work-life balance as an advantage, indicating that achieving this balance is a reason for staying.

Conclusions

The findings of this research provide crucial insights into the factors that influence employee satisfaction and retention, highlighting several key areas that organizations need to address to improve workplace conditions.

Both current and former employees underscore the significance of a supportive and positive work environment. This is evident from the frequent mentions of terms such as "good working environment," "positive culture," and "supportive team" (Klotz and Bolino, 2016). These elements are crucial for fostering employee satisfaction and engagement. A harmonious work environment promotes collaboration and a sense of belonging, which are essential for maintaining high morale and productivity. This alignment with organizational culture can significantly enhance job satisfaction and reduce turnover intentions, as noted by MacIntosh and Doherty (2010). Thus, maintaining a positive team culture and work environment is not just beneficial but essential for retaining talent and ensuring organizational stability.

The desire for career growth and learning opportunities is a prominent theme among both current and former employees. This trend highlights the importance of providing clear paths for advancement and professional development. Singh (2018) found a strong positive correlation between career management practices and career satisfaction, indicating that structured career growth opportunities can significantly reduce turnover rates. Furthermore, the emphasis on terms such as "career growth," "learning opportunities," and "advancement" reflects the employees' need for continuous professional development (Leonardi and Panggabean, 2021). Organizations that invest in their employees' career development not only enhance job satisfaction but also build a more skilled and committed workforce.

The issue of overwork and long hours emerges as a major disadvantage for both current and former employees, indicating a critical area for or-

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

ganizational improvement. Terms like “overwork” and “long hours” are frequently mentioned, suggesting that excessive workloads contribute significantly to employee dissatisfaction and burnout (Spagnoli *et al.*, 2020). This aligns with the findings of Suprani *et al.* (2022), who noted that high workloads and poor work-life balance are key factors driving turnover intentions. Addressing these issues by implementing policies that promote a better work-life balance, such as flexible working hours and manageable workloads, can significantly improve employee well-being and retention.

Both groups express dissatisfaction with poor management and favouritism, highlighting the importance of effective leadership and fair treatment in the workplace. Phrases such as “poor management,” “micromanagement,” and “favouritism” point to significant issues that impact employee morale and trust in leadership (Rachman *et al.,* 2022). Effective leadership is crucial for fostering a positive organizational climate and employee engagement. As Olaniyan and Hystad (2016) demonstrated, authentic leadership that promotes trust and integrity can significantly reduce job insecurity and turnover intentions. Therefore, organizations need to focus on developing management practices that are transparent, fair, and supportive to enhance employee satisfaction and loyalty.

Leadership has been one factor considered crucial in worker resignation situations. From an internal social marketing point of view, it is considered one of the critical factors in achieving greater employee performance, as shown by the research of Almaslukh *et al.* (2022) and Akbari *et al.* (2017). The first identifies participative and supportive leadership as critical components of internal social marketing that significantly improve job satisfaction. These leadership styles facilitate effective communication, training, and development, vital to maintaining high employee morale and performance. The second proposes that transformational leadership can improve internal marketing efforts by fostering a motivating and supportive work environment. It, in turn, strengthens social capital and employee loyalty. Related to leadership is favouritism towards some specific employees. As indicated by Almaslukh *et al.* (2022), favouritism can lead to a decrease in overall employee morale. When certain employees receive preferential treatment, others may feel undervalued and demotivated, leading to resentment and disengagement. Furthermore, the perception of unfairness can erode trust in the administration. Employees must believe that their efforts and contributions are recognized. Favouritism disrupts this belief and creates a divide between management and staff. Furthermore, when favouritism is perceived, the positive effects of internal social marketing efforts to improve job satisfaction are nullified. Another aspect that former employees have highlighted in the results is the lack of job promotion. Internal social marketing can foster employee satisfaction and readiness for career advancement, benefiting the organization through improved performance and reduced turnover (Raeisi *et al.,* 2020). Finally, workload appears as another critical factor to consider in employee resignation, which coincides with studies such as that of Spagnoli *et al.* (2020), who found that a high workload, when managed well, can improve performance by motivating employees, but it can also cause work addiction, which hurts health and personal life. The study emphasizes the need for managers to carefully monitor and balance workload to avoid adverse outcomes such as burnout and decreased work performance.

Therefore, this research has met the three proposed objectives. The first was related to exploring the integration of theories. The analysis of employee reviews reveals that organizations that successfully integrate these theories into their practices see improved employee morale and retention rates, highlighting the practical impact of these integrated strategies. The second was to identify the critical factors. The results of the semantic network analysis clearly demonstrate that a supportive work environment and opportunities for career growth are highly valued by employees, while issues such as excessive workload and poor management practices significantly contribute to dissatisfaction and turnover. Finally, the third was to assess the impact on organizational success. The study’s findings indicate that companies that prioritize these factors not only reduce turnover but also build a more resilient workforce, ultimately contributing to sustained organizational success in a competitive global market.

This research provides empirical evidence and actionable insights into how enhancing workplace environments and adopting ethical management practices can directly improve employee retention and satisfaction. In the context of the Great Resignation, where turnover rates are alarmingly high, understanding these factors is crucial for managers who seek to maintain a competitive edge. The findings highlight the importance of creating a positive work environment, offering clear career advancement opportunities, and implementing effective management practices—all of which are critical for fostering employee loyalty and reducing turnover. By integrating these insights into their organizational strategies, managers can not only retain top talent but also build a more resilient and motivated workforce, essential for long-term success in a competitive global market.

Furthermore, this study offers a novel exploration of the intersection between employee well-being and corporate responsibility, contributing to the growing body of literature on sustainable business practices. It addresses gaps in existing research by providing an integrated analysis that links employee satisfaction with long-term organizational success, particularly in the face of global workforce changes. Theoretical concepts such as social responsibility and happiness management are operationalized within real organizational settings, providing a valuable template for future empirical research. This study not only advances our understanding of how these concepts can be effectively applied in practice but also opens up new theoretical pathways for exploring the synergies between employee well-being, corporate ethics, and organizational performance. By bridging the gap between theory and practice, this research lays the groundwork for further studies that can explore these dynamics across different industries and cultural contexts.

While this study provides valuable insights into the factors influencing employee satisfaction and retention, particularly during the Great Resignation, it is essential to acknowledge the limitations related to the data source and the scope of the study. While the use of Glassdoor reviews provides valuable insights into employee satisfaction and organizational practices, it is important to acknowledge the potential biases inherent in this data source. One significant concern is self-selection bias. This bias arises because the individuals who choose to leave reviews on platforms like Glassdoor are often those who are either highly satisfied or deeply dissatisfied with their employment experience. As a result, the dataset may overrepresent extreme viewpoints, potentially skewing the analysis toward more polarized opinions. Additionally, response bias can occur when reviewers provide feedback that they believe is expected by others, rather than an objective reflection of their experience. This could be influenced by the public nature of the reviews and the knowledge that potential employers or other employees may view them. Because of that, one limitation of this research is its reliance on self-reported data from Glassdoor, which may introduce bias as the reviews are subjective and can be influenced by individual experiences and perceptions. Additionally, the scope of the study, focusing on large companies with over 10,000 employees, limits the applicability of the results to smaller organizations or those in different sectors. The organizational dynamics in smaller companies or industries not represented in the sample might differ significantly, meaning the factors identified here may not be as relevant or impactful in those contexts.

The limitations related to self-selection and response biases are explicitly acknowledged in the interpretation of the results. While Glassdoor reviews offer unique and real-time insights into employee experiences, the findings should be understood within the context of these limitations. To mitigate these limitations, future research could adopt a multi-method approach, combining quantitative analysis of Glassdoor reviews with qualitative methods such as interviews or focus groups with employees across different organizational sizes and industries. This mixed-methods approach would allow for a more comprehensive understanding of employee satisfaction and retention, capturing a broader spectrum of experiences and perspectives. Through the proposed mixed-method approach, future research can delve deeper into the specific mechanisms by which different

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

leadership styles—such as transformational, authentic, and participative leadership—uniquely impact organizational culture, employee engagement, and retention. By integrating quantitative analysis of broad datasets like Glassdoor reviews with qualitative insights gathered from interviews or focus groups, researchers can explore how these leadership models foster positive organizational climates or, conversely, contribute to employee dissatisfaction and turnover. This comprehensive examination will provide actionable insights for organizations seeking to optimize their leadership approaches for better outcomes, addressing a critical gap in the current literature and enhancing our understanding of the role leadership plays in shaping employee experiences and organizational success. Additionally, expanding the sample to include smaller companies and different industries could provide a more comprehensive understanding of employee experiences. Investigating the impact of specific interventions, such as leadership training programs or workload management policies, on employee well-being and organizational outcomes could also provide valuable insights for improving workplace practices.

References

Aguinis, H. and Glavas, A. (2012). What we know and don't know about corporate social responsibility: A review and research agenda. *Journal of management, 38*(4), 932-968. https://doi.org/10.1177/0149206311436079

Akbari, M., Seyyed Amiri, N., Imani, S., Rezaeei, N. and Foroudi, P. (2017). Why leadership style matters: a closer look at transformational leadership and internal marketing. *The Bottom Line*, *30*(4), 258-278. https://doi.org/10.1108/BL-08-2017-0021

Almaslukh, F., Khalid, H. and Sahi, A. (2022). The impact of internal marketing practices on employees' Job satisfaction during the COVID-19 pandemic: The case of the Saudi Arabian banking sector. *Sustainability, 14*(15), 9301. https://doi.org/10.3390/su14159301

Brennan, L., Binney, W. and Hall, J. (2015). Internal social marketing, servicescapes and sustainability: a behavioural infrastructure approach. En W. Wymer (ed.), *Innovations in Social Marketing and Public Health Communication*, (87-105). Springer.

Cameron, K., Mora, C., Leutscher, T. and Calarco, M. (2011). Effects of positive practices on organizational effectiveness. *The Journal of Applied Behavioral Science*, *47*(3), 266-308. https://doi.org/10.1177/0021886310395514

Chiang-Vega, M., Hidalgo-Ortiz, M. J. P. and Gómez-Fuentealba, M. N. (2021). Effect of job satisfaction and confidence on the organizational climate, through structural equations. *Retos, 11*(22), 347-352. https://doi.org/10.17163/ret.n22.2021.10

Cuesta-Valiño, P., Gutiérrez-Rodríguez, P. and Contreras-Contreras, P. (2023). Consumer Happiness: Origin and Development of the Concept. *ANDULI. Revista Andaluza de Ciencias Sociales,* (23), 83-98. https://doi.org/10.12795/anduli.2023.i23.05

Del Rosario Ángel, L. A., Feijoo Jaramillo, I. M., Sarmiento Chugcho, C. B. and Ramón Ramón, D. I. (2024). El marketing interno, satisfacción laboral y compromiso de los empleados en las empresas comerciales. *Revista Universidad de Guayaquil, 138*(1), 13-24. https://bit.ly/3XjjS4W

Diener, E., Kanazawa, S., Suh, E. M. and Oishi, S. (2015). Why people are in a generally good mood. *Personality and Social Psychology Review*, *19*(3), 235-256. https://doi.org/10.1177/1088868314544467

Fernández Lorenzo, A., Pérez Rico, C., Méndez Rojas, V., Fernández García, C., Méndez Rojas, A. and Calero Morales, S. (2019). El marketing social y su influencia en la solución de problemas de salud. *Revista Cubana de Investigaciones Biomédicas, 36*(3). https://bit.ly/4g2RCuO

Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge university press. ISBN: 9780521151740

Geiger, S.J., Brick, C., Nalborczyk, L., Bosshard, A. and Jostmann, N.B. (2021). More green than gray? Toward a sustainable overview of environmental spillover effects: a Bayesian meta-analysis. *Journal of Environmental Psychology*, *78*, 101694. https://doi.org/10.1016/jjenvp.2021.101694

González Santa Cruz, F., Moreira Mero, N., Loor Alcívar, M. I. e Hidalgo Fernández, A. (2020). Analysis of the internal marketing dimensions in social economy organizations: Study applied to co-operativism in Ecuador. *Frontiers in Psychology*, *11*, 580673. https://doi.org/10.3389/fpsyg.2020.580673

Grant, A. M., Christianson, M. K. and Price, R. H. (2007). Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of Management Perspectives*, *21*(3), 51-63. https://doi.org/10.5465/amp.2007.26421238

Gutiérrez-Rodríguez, P., Cuesta-Valiño, P., Ravina-Ripoll, R. and García-Henche, B. (2023). Purchase intention of fashion brand retailers: a journey through consumer engagement and happiness. *Management Decision, 62*(2), 381-402. https://doi.org/10.1108/md-04-2023-0541

ILO (International Labour Organization). (2022). World Employment and Social Outlook: Trends 2022. https://bit.ly/3X9SuFA

Jauhar, J., Ting, C. S. and Abdul Rahim, N. F. (2017). The impact of reward and transformational leadership on the intention to quit of generation Y employees in oil and gas industry: Moderating role of job satisfaction. *Global Business & Management Research, 9*, 426-441. https://bit.ly/473lEui

Jia, L. and Zhang, H. (2017, December). Improving managerial efficiency through analyzing and mining resigned staff data. *In 2017 13th International Conference on Computational Intelligence and Security (CIS)* (pp. 331-335). IEEE. https://doi.org/10.1109/CIS.2017.00078

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*(4), 692-724. https://doi.org/10.5465/256287

Karl, K. A. and Hancock, B. W. (1999). Expert advice on employment termination practices: How expert is it? *Public Personnel Management, 28*(1), 51-62. https://doi.org/10.1177/009102609902800105

Klotz, A. C. and Zimmerman, R. D. (2015). On the turning away: An exploration of the employee resignation process. En *Research in Personnel and Human Resources Management* (Vol. 33, pp. 51-119), Emerald Group Publishing Limited, Leeds. https://doi.org/10.1108/S0742-730120150000033004

Klotz, A. C. and Bolino, M. C. (2016). Saying goodbye: The nature, causes, and consequences of employee resignation styles. *Journal of Applied Psychology, 101*(10), 1386–1404. https://doi.org/10.1037/apl0000135

Leonardi, V. and Panggabean, H. R. G. (2021). The impact of perceived career opportunity to employees turnover intention mediated by organizational commitment. *Jurnal Psikologi Ulayat, 8*(2), 227-246. https://doi.org/10.24854/jpu123

Long, C. S. and Thean, L. and. (2011). Relationship between leadership style, job satisfaction and employees' turnover intention: A literature review. *Research Journal of Business Management*, *5*(3), 91-100. https://doi.org/10.3923/rjbm.2011.91.100

Fernández Lorenzo, A., Pérez Rico, C., Méndez Rojas, V., Fernández García, C., Méndez Rojas, A. and Calero Morales, S. (2019). El marketing social y su influencia en la solución de problemas de salud. *Revista Cubana De Investigaciones Biomédicas, 36*(3)

MacIntosh, E. W. and Doherty, A. (2010). The influence of organizational culture on job satisfaction and intention to leave. *Sport Management Review, 13*(2), 106-117. https://doi.org/10.1016/j.smr.2009.04.006

Massachusetts Institute of Technology. (2022). Toxic culture is driving the Great Resignation. https://bit.ly/3Mp2OEo

Matten, D. and Crane, A. (2005). Corporate citizenship: Toward an extended theoretical conceptualization. *Academy of Management Review*, *30*(1), 166-179. https://doi.org/10.5465/amr.2005.15281448

Neaves, E. (2017). *It's not you, it's me: An inductive exploration of employee accounts for quitting.* https://bit.ly/4bNDLoW

Olaniyan, O. S. and Hystad, S. W. (2016). Employees' psychological capital, job satisfaction, insecurity, and intentions to quit: The direct and indirect effects of authentic leadership. *Revista de Psicología del Trabajo y de las Organizaciones, 32*(3), 163-171. https://doi.org/10.1016/j.rpto.2016.09.003

Park, J. and Tran T., B. H. (2018). Internal marketing, employee customer-oriented behaviors, and customer behavioral responses. *Psychology & Marketing*, *35*(6), 412-426. https://doi.org/10.1080/14783363.2018.1446754

Porter, M. E. and Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard business review*, *84*(12), 78-92.

Previte, J. and Russell-Bennett, R. (2014). The need for Internal Social Marketing (ISM): Extending the people focus to service employees. In *Social Marketing from Tunes to Symphonies*, 326-333. https://doi.org/10.4324/9780203380925-25

Qiu, J., Boukis, A. and Storey, C. (2022). Internal marketing: A systematic review. Journal of *Marketing Theory and Practice*, *30*(1), 53-67. https://doi.org/10.1080/10696679.2021.1886588

Rachman, M. M., Handayani, C. M. S. and Sugijanto, S. (2022). The mediating role of job satisfaction: the impact of organizational commitment on employee intention to quit. *Asia Pacific Management and Business Application*, *11*(2),

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

201-220. https://doi.org/10.21776/ub.apmba.2022.011.02.5

Raeisi, S., SuhailiRamli, N. and Lingjie, M. (2020). A Systematic Review of the Influence of Internal Marketing on Service Innovation. *Journal of Risk and Financial Management 13*(9), 207. https://doi.org/10.3390/jrfm13090207

Rafiq, M. and Ahmed, P.K. (2000). Advances in the internal marketing concept: definition, synthesis and extension. *Journal of Services Marketing*, *14*(6), 449-462. https://doi.org/10.1108/08876040010347589

Ravina-Ripoll, R., Villena-Manzanares, F. and Gutiérrez-Montoya, G. A. (2017). Una aproximación teórica para mejorar los resultados de innovación en las empresas desde la perspectiva del "Happiness Management". *Retos, 7*(14), 113. https://doi.org/10.17163/ret.n14.2017.06

Reyes-Ramírez, L. A., Leyva-del Toro, C., Pérez-Campdesuñer, R. and Sánchez-Rodríguez, A. (2022). Variables de la responsabilidad social corporativa. Un modelo de ecuaciones estructurales. *Retos, 12*(24), 286-305. https://doi.org/10.17163/ret.n24.2022.06

Richardson, B. (2001). Constructive dismissal: a guide for employers and employees. *Nursing and Residential Care, 3*(10), 496-498. https://doi.org/10.12968/nrec.2001.3.10.9279

Richter, M., König, C. J., Geiger, M., Schieren, S., Lothschütz, J. and Zobel, Y. (2018). "Just a little respect": Effects of a layoff agent's actions on employees' reactions to a dismissal notification meeting. *Journal of Business Ethics*, *153,* 741-761. https://doi.org/10.1007/s10551-016-3372-7

Robertson, J. L. and Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior*, *34*(2), 176-194. https://doi.org/10.1002/job.1820

Rodas, M., Andrés-Romero, M. P. & Astudillo-Guillén, D. B. (2022). Proyecto de inserción laboral inclusivo: formulación de su gestión organizacional. *Retos, 12*(24), 368-384. https://doi.org/10.17163/ret.n24.2022.10

Salvador-Moreno, J. E., Torrens-Pérez, M. E., Vega-Falcón, V. and Noroña-Salcedo, D. R. (2021). Diseño y validación de instrumento para la inserción del salario emocional ante la COVID-19. *Retos, 11*(21), 41-52. https://doi.org/10.17163/ret.n21.2021.03

Seligman, M. E. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Simon and Schuster.

Singh, S. (2018). Organizational career management practices, career satisfaction, and intention to quit among Indian employee: Examining the moderating effect of 'four types of work experience'. *Australian Journal of Career Development*, *27*(3), 150-159. https://doi.org/10.1177/1038416218768896

Smith, A. M. and O'Sullivan, T. (2012). Environmentally responsible behaviour in the workplace: An internal social marketing approach. *Journal of Marketing Management*, *28*(3-4), 469-493. https://doi.org/10.1080/0267257X.2012.658837

Sojan, T. (2023). A study on the causes of employee turnover and different retention tactics developed by business. *International Scientific Journal of Engineering and Management*, *2*(3), 1-8. https://doi.org/10.55041/ISJEM00126

Spagnoli, P., Haynes, N., Kovalchuk, L., Clark, M., Buono, C. and Balducci C. (2020). Workload, Workaholism, and Job Performance: Uncovering Their Complex Relationship. *International Journal of Environmental Research and Public Health17*, (18), 6536. https://doi.org/10.3390/ijerph17186536

Suprani, Y., Hakimah, Y. and Said, M. (2022). Intensi Turnover Sebagai Mediasi Yang Mempengaruhi Komitmen Organisasi Terhadap Kepuasan Kerja Karyawan BBC. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, *10*(2), 841-850. https://doi.org/10.37676/ekombis.v10i2.2166

Van, V. H., Phong, N. X., Vinh, L. N. and Hoa, P. T. (2022). Resignation culture in Vietnam today: Issues and recommendations. *Linguistics and Culture Review*, *6*(S2), 210-221. https://doi.org/10.21744/lingcure.v6nS2.2028

Wang, G., Noorhidawati, A. and Aspura, Y. I. (2024). Job advertisements for data visualization in academic libraries: A content analysis of job postings. *The Journal of Academic Librarianship*, *50*(4), 102896. https://doi.org/10.1016/j.acalib.2024.102896

Wells, V. K., Taheri, B., Gregory-Smith, D. and Manika, D. (2016). The role of generativity and attitudes on employees home and workplace water and energy saving behaviours. *Tourism Management*, (56), 63-74. https://doi.org/10.1016/j.tourman.2016.03.027

Retos
Revista de Ciencias de
Administración y Economía

october 2024-march 2025
pp. 255-268
https://doi.org/10.17163/ret.n28.2024.05

Happiness management and university entrepreneurship: literature review

Gestión de la felicidad y emprendimiento universitario: revisión de la literatura

Pedro Cuesta-Valiño
Professor of the Department of Economics and Business Administration, Universidad de Alcalá, Spain
pedro.cuesta@uah.es
https://orcid.org/0000-0001-9521-333X

Pilar Yustres-Duro
Pre-doctoral fellow at the International Doctoral School of the Universidad Camilo José Cela, Spain
pilar.yustres@ucjc.edu
https://orcid.org/0000-0003-4250-0575

Laura Melendo-Rodríguez-Carmona
Professor, Faculty of Communication and Humanities, Universidad Camilo José Cela, Spain
lmelendo@ucjc.edu
https://orcid.org/0000-0003-1111-1905

Estela Núñez-Barriopedro
Professor of the Department of Economics and Business Administration, Universidad de Alcalá, Spain
estela.nunezb@uah.es
https://orcid.org/0000-0002-2292-8147

Received on: 14/05/24 **Revised on:** 16/08/24 **Approved on:** 26/08/24 **Published on:** 01/10/24

Abstract: the increasing importance of the concept of happiness management in the last 10 years makes it necessary to review the literature to assess the main lines of research and the possible gaps. Additionally, there is a need for more business and entrepreneurship education within universities. Therefore, this paper aims to contribute to the advancement of happiness management in the context of university entrepreneurship, where the existing relationships between the constructs happiness management and entrepreneurship and happiness and entrepreneurship are identified. In this work a literature review is made, where through five filtering processes a total of 391 articles selected as object of study are reached. Subsequently, the state of the art is discussed and the thematic areas of research on university entrepreneurship in relation to happiness management are identified, which are: the analysis of management and business organization, the business models, the types of entrepreneurships, the financing and the capabilities and training as the most prominent topics. In the end, the contributions of this study to the state of the art and the conclusions reached are mentioned, determining, through the identification of the different thematic areas, the roadmap for the implementation of future happiness management strategies within university entrepreneurship.

Keywords: entrepreneurship, economic development, job satisfaction, urban, rural, and regional economics, regional economic activity: growth, development, environmental issues, changes.

Suggested citation: Cuesta-Valiño, P., Yustres-Duro, P., Melendo-Rodríguez-Carmona, L. and Núñez-Barriopedro, E. (2024). Happiness management and university entrepreneurship: literature review. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 255-268. https://doi.org/10.17163/ret.n28.2024.05

Resumen: el incremento de la importancia del concepto de gestión de la felicidad en los 10 últimos años hace necesario una revisión de la literatura que permita valorar las principales líneas de investigación y posibles gaps. Adicionalmente existe la necesidad de mayor educación empresarial dentro de las universidades. Por lo que el presente trabajo pretende contribuir al avance de gestión de la felicidad en el contexto del emprendimiento universitario, donde se identifican las relaciones existentes entre los constructos gestión de la felicidad y emprendimiento y felicidad y emprendimiento. En este trabajo se hace una revisión de la literatura, donde a través de cinco procesos de filtrado se llega a un total de 391 artículos seleccionados como objeto de estudio. Posteriormente se debate sobre el estado de la cuestión y se identifican las áreas temáticas de investigación del emprendimiento universitario en relación con la gestión de la felicidad, las cuales son: el análisis de la gestión y organización empresarial, modelos de negocio, tipos de emprendimiento, financiación y capacidades y formación como temáticas más destacadas. Por último, se mencionan las aportaciones de este estudio al estado de la cuestión y las conclusiones alcanzadas, determinando, mediante la identificación de las distintas áreas de temáticas, la hoja de ruta para la implementación de futuras estrategias de gestión de la felicidad dentro de los emprendimientos en la universidad.

Palabras claves: emprendimiento, desarrollo económico, satisfacción laboral, economía urbana, rural y regional, actividad económica regional: crecimiento, desarrollo, cuestiones medioambientales, cambio.

Introduction

This work consists of a review of the literature on entrepreneurship in the university and how "happiness management" influences entrepreneurial activity. Its starting point are previous reviews of the literature (Alonso-García *et al.*, 2021; Ravina-Ripoll *et al.*, 2023; Cuevas-Estrada and Sánchez-Bayón, 2024; Sierra-Casanova *et al.*, 2024; Melendo Rodríguez-Carmona *et al.*, 2024).

The management of happiness has become an essential element in the operation of the company, and it can be applied in various areas or departments and serves to promote business growth. It is also important to note that the demand for entrepreneurship-related training within the University has increased (Piperopoulos and Dimov, 2015). This need arises due to the difficulty of setting up a company for potential entrepreneurs, who lack the necessary training and knowledge in business matters (Martínez Martín *et al.*, 2019), i.e. even having an innovative and potentially successful business idea is perceived as difficult to undertake, especially if it is in the rural world (Martínez-Campillo *et al.*, 2019). Faced with this and with a proper university orientation, the student is placed at the heart of the business ecosystem, so that he or she makes decisions and influences business activity (Audretsch and Belitski, 2017).

In line with the above, Ruiz-Navarro *et al.* (2021) find that 11.6% of nascent university students and 20.8% of consolidated university students intend to undertake. This is due to the mediating effect of proactivity and optimism that has occurred since 2022, increasing entrepreneurial intention (Cardella *et al.*, 2024). This situation highlights the need to support business education in universities, where the highly educated workforce becomes the core of innovation and knowledge transfer in today's economy (Ravina-Ripoll *et al.*, 2017). It is here that universities increase their range of action by assuming new missions and relationships to contribute to the economic and social development of the territory in which they operate based on innovation and entrepreneurship (González Moreno *et al.*, 2019), promoting the management of happiness within the company and what this management can bring to entrepreneurs and workers.

It is worth highlighting the statements made by La Rubia *et al.* (2021) and Bel Durán *et al.* (2023), who highlight the need to promote entrepreneurial culture at all educational stages, given that when students arrive at university it is too late to promote such culture. Likewise, it is essential to orient careers that do not have a direct link with business sciences towards the inclusion of training modules on entrepreneurship within their programming (Salas-Velasco, 2023) and do so with specialized training in the different requirements to be an entrepreneur, as well as in the way of managing happiness within their working life as a new trend within the management sciences.

All of the above demonstrates how entrepreneurship gains strength and how happiness management takes center stage, being involved in different parts of the company, such as social marketing strategies (Elías Zambrano *et al.*, 2021;

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Jiménez-Marín *et al.*, 2020). Another way to address happiness management would be to focus their efforts on incentivizing creativity and innovation (Ravina-Ripoll *et al.*, 2019). In addition, this concept of happiness management is also linked to the management of human talent (Ravina-Ripoll *et al.,* 2021a) of the company taking into account the capital of the staff. Happiness management is also considered an element of economic progress (Ravina-Ripoll *et al.*, 2022), as it drives complex productive or sustainability actions within the company.

Then, first, the traditional economic change and entrepreneurship and happiness management in this sector are presented; then, the selection criteria of the corpus; then, the debates; then, the contributions on the state of the matter and, finally, the conclusions.

Traditional economic change and entrepreneurship

The support and promotion of entrepreneurship in the university is an action to advance in the change of the traditional economic model, by allowing the growth of a recent productive area that is more innovative and intensive in the use of technologies and competitive internationally (La Rubia *et al.*, 2021). This entrepreneurial action within the university can take place from the academic and the university approach. The differences between both entrepreneurial approaches are: the assumption of risks by the entrepreneur, the organizational effort and that the object of entrepreneurship must be an innovative task (Abreau and Grinevich, 2013). Both approaches are characterized by the resource limitation of the university (Bezanilla *et al.*, 2020) .

On the one hand, there is academic entrepreneurship (Abreau and Grinevich, 2013) defined as an act that goes beyond the traditional academic roles of teaching and/or research, being understood as an innovative activity that carries a risk and that brings financial rewards for the academic or the institution in which the person works. Also, the definition is expanded to emphasize the commercial value of entrepreneurship with the social character of the entrepreneurial task to provide a greater intangible value to academic entrepreneurship, such as the stimulation of learning in entrepreneurial environments, the sustainability of institutions, etc. This type of entrepreneurship facilitates academic transfer and the creation of university *spin-offs* (Vega Gómez *et al.*, 2019).In addition, university entrepreneurship, which is gaining more and more relevance (Bel Durán *et al.*, 2023), is led by the student mass, and it is an interesting phenomenon in universities with less research capacity by focusing their focus on the creation of companies by their students (Siegel and Wright, 2015).

Business workshops and training complements that encourage entrepreneurship are encouraged (Escalante Castro *et al.*, 2024). The entrepreneurial university perfects the research university by linking the search for solutions to the problems of industry and society with the academic field (Etzkowitz, 2017) using the basic research model traditionally used by universities.

University-born companies are understood as genuinely innovative, not only by being originated from research groups but by transferring knowledge from the university to society (Bel Durán *et al.*, 2023), for example, the implementation of virtual reality in a business can affect consumers, creating an experiential value (Li *et al.*, 2023). In addition, the entrepreneurial university acquires a strong social character, understanding that the generation of wealth that occurs through this function has to contribute to the creation of social value (Bel Durán *et al.*, 2023), which would lead to considering entrepreneurship the engine of innovation and social growth (Ward *et al.*, 2019; Aparicio *et al.*, 2021) of a country. Entrepreneurs can be seen as a source of innovation, job creation, responsible practices and promoters of the concept of sustainable enterprises (Boscán Carroz *et al.*, 2023).

Managing happiness in entrepreneurship

The social change that entrepreneurship seeks to produce is reflected in job creation, economic growth, boosting productivity, increasing competitiveness, encouraging companies to improve efficiency and introducing innovation (Mortan *et* *al.*, 2014; Robb and Robinson, 2014). This social change when affecting people is linked to the management of happiness within the entrepreneurial ecosystem. The company seeks to adapt to society by adopting happiness management strategies oriented to changing social demands. For example, through the creation of social enterprises (Bull and Ridley-Duff, 2019) that challenge the traditional conceptualization of the company for the sake of a moral orientation of the economic system and the social value that it generates. Another example is the "*ecopreneurship*" oriented to sustainable development (Del Brío González *et al.*, 2022).

These movements are part of the "green economy" that gives special importance to the sustainable nature of productive activity to preserve ecosystems (González-Argote *et al.*, 2024). The green economy is influenced by consumer behavioral changes, as there is an increase in customer preference for sustainable brands (Ravina-Ripoll *et al.*, 2021b). The "green economy" is also extrapolated to the field of human resources along with happiness management (Martínez-Falcó *et al.*, 2024), showing that these practices perfect work commitment, employee welfare and sustainable performance.

In addition, the implementation and use of the sustainable culture of the organization oriented to corporate social responsibility practices can lead to a higher level of financial performance and the company itself to climb positions within the corporate ranking (Pinzón-Castro and Maldonado-Guzmán, 2023). Also, this type of projects causes a direct effect within the regional growth of the site in which they are developed, contributing to the increase of regional wealth (Aparicio *et al.*, 2023).

It is interesting to encourage sustainable aspects or corporate social responsibility within the company to influence the happiness of both the company itself and the consumer (Cuesta-Valiño *et al.*, 2023a), being consistent with the current values and social purposes sought by the entrepreneur. This happiness of the consumer, caused by seeing their social and sustainable demands satisfied, influences their loyalty and supposes an alignment with the management of the happiness of the company, since it encourages the adoption of habits or social and sustainable behaviors within the organization to satisfy the demands of its consumers (Gutiérrez-Rodríguez *et al.*, 2023).

Likewise, it is understood that the beginning of entrepreneurial activity generates a procedural utility (Frey and Benz, 2003; Kautonen *et al.*, 2015), i.e. we work with an approach oriented to welfare results. Thus, it can be identified that the fact of being an entrepreneur, working in reduced hierarchies, can increase happiness at work, which is related to better internal communication of these companies since there is a close link between happiness and it (Castro-Martínez and Díaz-Morilla, 2020). Just as it can be beneficial to work in the communication of the company in general, quality informative content through social networks can be very effective, directly impacting on the purchase intention and the loyalty of consumers (Çil *et al.*, 2023). In addition, using communication and content marketing techniques by the company creates functional, social and emotional value at the consumer level (Repovienė and Pažėraitė, 2023).

Another aspect that can increase the happiness of the entrepreneur is autonomy, also understood as individual self-organization (Shir *et al.*, 2019; Rosenblat and Stark, 2016), since they are considered "their own bosses". This characteristic is held in such high esteem that it compensates for the difficulties associated with self-employment (Binder and Coad, 2010); in addition, entrepreneurs are also characterized by their shared mentality, talent, innovation and flexibility in work (Ravina-Ripoll *et al.*, 2017; Teece, 2014a), which is also understood as fundamental components of emotional wages (Madero-Gómez *et al.*, 2021). This emotional salary has a direct impact on happiness at work and, in addition, it mediates between organizational justice and happiness at work, so it becomes a fundamental element in the management of happiness (Ravina-Ripoll *et al.*, 2024).

Also, the happiness derived from entrepreneurial traits can contribute to maximizing the achievements of the subject and those of the organization (Cuesta-Valiño *et al.*, 2023b; Stam *et al.*, 2014). Therefore, "*happiness management*" within the business environment, through social enterprises (Battilana *et al.*, 2015) or sustainable, for example, can generate personal and professional benefits within employees and employers, impacting on the entity (Ravina-Ripoll *et al.*, 2022; Rando-Cueto *et al.*, 2023) which would end up increasing the quality of life of the population in general.

Table 1 summarizes the relationship between the constructs under study, the management of happiness with entrepreneurship and happiness with entrepreneurship.

Table 1

Analysis of the relationship between happiness management-entrepreneurship and happiness-entrepreneurship

Related Constructs	Relationship between constructs
Happiness management - entrepreneurship	In entrepreneurship, happiness management has a crucial role, since it applies to concepts such as salary, hours, entrepreneurial autonomy, among others.
Happiness-entrepreneurship	The happiness within the enterprises is reflected in the results of the enterprise, because the well-being of the entrepreneur affects the profits of the company.

Corpus selection criteria

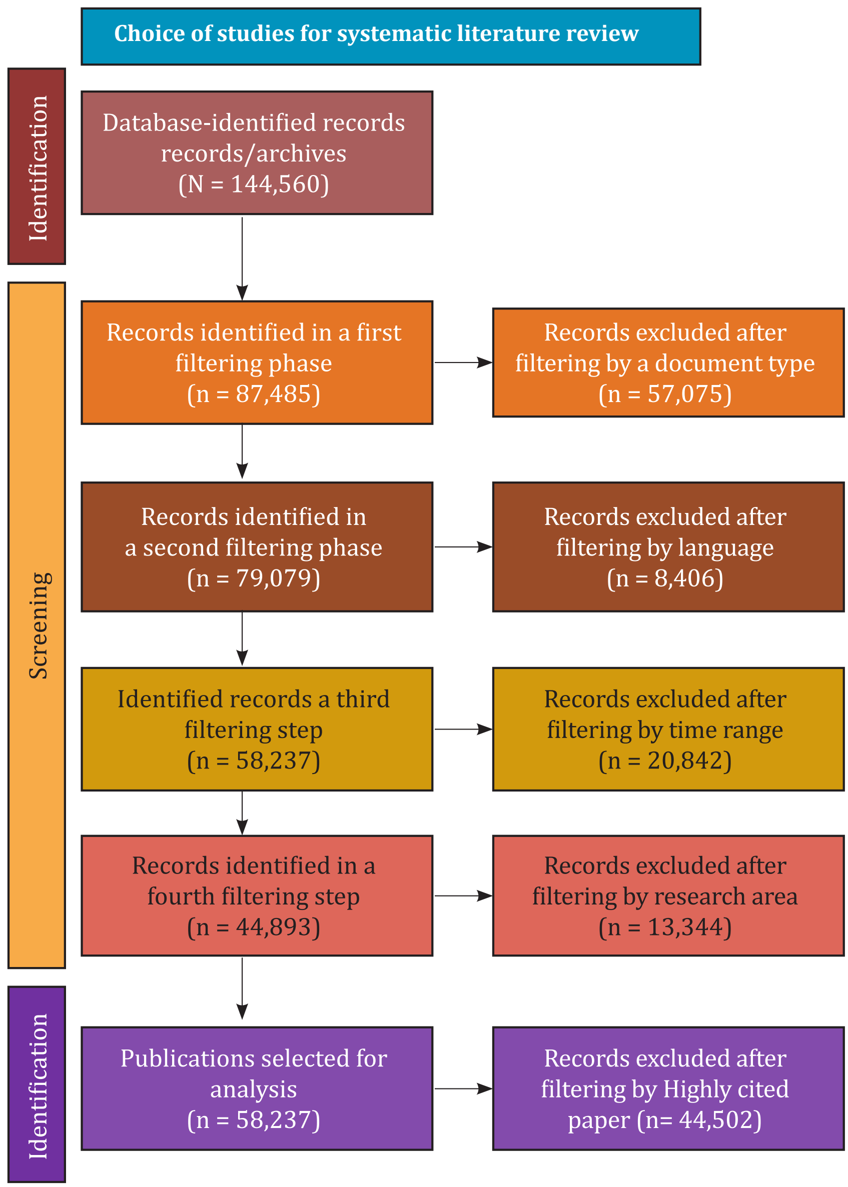
In order to contribute to the study of happiness management within the context of university entrepreneurship, a systematic review of the literature is carried out. This is done using a PRISMA methodology where data is collected from the Web of Science database on June 17, 2024. Search criteria are based on choosing items that contain Topic: "happiness management" AND "entrepreneur" AND "university" AND "happiness management" OR "happiness at work" OR "workplace happiness" OR "happiness index" OR "employee happiness" OR "entrepreneur happiness" OR "wellbeing management" OR "wellbeing at work" OR "wellbeing index" OR "wellbeing" OR "wellbeing" OR "wellbeing index" OR "wellbeing well-being" OR "well-being at work" OR "entrepreneur well-being" OR "subjective well-being" AND "entrepreneur" OR "entrepreneurial" OR "entrepreneurship" OR "entrepreneurs" OR "university entrepreneur" OR "university entrepreneurial" OR "university entrepreneurship".

Subsequently, a first filtering is carried out which is limited by *Document type*, *Article*. Then it is filtered for the second time by language, limiting the search to English and Spanish and also a third filtering by publication date, from 2014-2024, because it is the period in which the bulk of the articles of this subject has been identified.

It is later re-filtered for the fourth time by Research Area: *Business*, *Economics*, *Behavioral Sciences*, *Social Issues*, *Social Sciences Other Topics*, *Social Work and Development Studies*. And finally, a fifth filter is made by Highly Cited Papers. After this search process 391 articles are obtained. Below is a flowchart to visually explain the process of searching and filtering articles (Figure 1).

Figure 1

Flowchart of the systematic literature review



Discussions on the-state-of-the-art

The selected articles are described below in order to identify the thematic areas that addressed the topic in order to expose the main contributions and the application of these articles to the object of study. For reasons of space, a table is made where the most relevant articles of this review are synthesized according to their number of citations and thematic area, and the main contributions and applications of happiness management in university entrepreneurship.

Thematic areas

With the analysis of this section it is intended to expose which are the areas that arouse the most interest in the study of happiness management in university entrepreneurship. Table 2 shows the different areas ordered by number of articles, management and business organization groups 181 articles out of 391, which represents 46.29% of the total, business models includes 66 articles, 16.88% of the total, types of entrepreneurship has 59 investigations, 15.09% of the total, business financing has 44 studies, 11.25% of the total, and skills and training includes 41 articles, 10.49% of the total.

Table 2

Thematic areas by number of articles and percentage of total 391 articles

Thematic area	Number of items	Percentage of total
Management and business organization	181	46.29 %
Business models	66	16.88%
Types of entrepreneurship	59	15.09 %
Corporate finance	44	11.25 %
Skills and training	41	10.49 %

Note. Own elaboration through the revision of 391 articles.

Management and business organization is the most relevant thematic area in this study, since it includes 181 articles out of the 391 that have been analyzed. The aspects related to creativity and innovation and methods of evaluation of the different management strategies and business organization are shown, where the opportunity to implement happiness management strategies in a more concrete and effective way is identified. It also describes the steps to venture into internationalization and studies the creation of business sense, identifying feelings, emotions and processes that are involved in the creation of meaning in a company. These works give a point of view from which to treat the management of happiness from the company

Table 3 identifies the three most relevant articles within this area. It can be seen how the idea is to create a reference for business management and organization, creativity, innovation, sense creation and apply experimental methods within this field. In addition, a series of proposals for the application of happiness management for each of these contexts are provided.

Table 3

Most cited articles of management and business organization, main contribution and application of happiness management in the entrepreneurship of the most cited articles of the literature review

Authors	No. of citations	Main contribution	Application of
happiness management in entrepreneurship	2420	Ser una fuente de referencia para especialistas en gestión y organización empresarial.	Detectar con rapidez nuevos temas emergentes en cuanto a la gestión de la felicidad en el emprendimiento.
Zupic and Čater (2015)	2420	To be a reference source for specialists in management and business organization.	Rapidly detect new emerging issues in the management of happiness in entrepreneurship.
Anderson *et al.* (2014)	2023	Identification of the main themes in terms of creativity and organizational innovation.	Introduce happiness management within creativity and organizational innovation.
Maitlis and Christianson (2014)	1391	Creating sense to face problems within an organization.	Emotions, cognitive processes, etc. are identified within the process of creating meaning in the organization. In our case, it would be transferred to the emotion of happiness and its management in the company.

Note. Own elaboration after the revision of 391 articles.

In the second most prominent thematic area are the articles aimed at knowing more about business models. This area included 66 of the 391 articles analyzed. It studied how the factors affect business models, whether social issues, related to digital transformation or otherwise and that are increasingly gaining validity within the business model approach. There are also different concerns such as the effect of current changes and currents in the economy, such as the impact of the coronavirus in the economy or how this new reality has affected companies.

In Table 4 are the three most relevant research studies of business models, among these are those that delve into innovation in business models, the composition of the entrepreneurial ecosystem, the collaborative economy and the effect of creating National Entrepreneurship Systems. Table 4 shows how these studies can contribute to the application of happiness management in entrepreneurship.

Table 4

Most cited articles of business models, main contribution and application of happiness management in entrepreneurship of the most cited articles of the literature review

Authors	No. of citations	Main contribution	Application of
happiness management in entrepreneurship	1179	Estudio sobre la innovación de modelos de negocio aplicado orientado a la gestión empresarial.	Incluir la gestión de la felicidad dentro de la innovación de modelos de negocio.
Foss and Saebi (2017)	1179	Study on the innovation of business models applied oriented to business management.	Include happiness management within the innovation of business models.
Spigel (2017)	989	Study the composition of the entrepreneurial ecosystem.	Study the entrepreneurial ecosystem from the perspective of happiness management.
Martin (2016)	889	Analyze the sharing economy.	Consider the happiness management factors that make up the sharing economy.

Note. Own elaboration through the revision of 391 articles.

The third thematic area is the one that studies the types of entrepreneurship. In this area, there are 59 articles out of 391. It analyzes the types of entrepreneurship and how social, digital and sustainable companies gain prominence. These articles show the need to manage this type of organization, resulting in the use of happiness management strategies from these companies.

In addition, Table 5 presents the most outstanding articles within this thematic area, highlighting digital, social, hybrid entrepreneurship and the new concept of entrepreneurship within a large company. Identifying these contributions to literature aims to expose examples of how happiness management can be applied within each type of enterprise.

Table 5

Most cited articles of types of entrepreneurship, main contribution and application of happiness management in entrepreneurship of the most cited articles of the literature review

Autores	N.º citas	Contribución principal	Aplicación de la gestión de la felicidad en el emprendimiento
Nambisan (2017)	1155	Estudio del emprendimiento digital.	Ver cómo la gestión de la felicidad puede introducirse dentro del emprendimiento digital.
Battilana y Lee (2014)	1086	Análisis sobre las organizaciones híbridas con especial foco en las empresas sociales.	Utilizar la gestión de la felicidad como herramienta para afrontar los desafíos organizativos de carácter social.
Doherty *et al.* (2014)	1015	Estudiar la empresa social a través de la organización híbrida.	Estudiar cómo se implementa la gestión de la felicidad dentro de la empresa social.

Note. Own elaboration through the revision of 391 articles.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

The fourth thematic area comprises 44 articles out of the 391 that have been analyzed and studies business financing. They seek to extrapolate the creation of benefits in the first parts of the entrepreneurship to generate social benefits for both the entrepreneur and the financier, thus managing happiness at different levels of the entrepreneurial process.

Table 6 lists the three most relevant articles within this area. These highlight the importance of *crowdfunding*, the drive of financial markets, social capital and the capital structure within companies. In addition, examples of concrete application of happiness management are included, linked to the studies analyzed.

Table 6

Most cited articles of business finance, main contribution and application of happiness management in entrepreneurship of the most cited articles of the literature review

Authors	No. of citations	Main contribution	Application of
Nambisan (2017)	1155	Study of digital entrepreneurship.	See how happiness management can be introduced into digital entrepreneurship.
Battilana and Lee (2014)	1086	Analysis on hybrid organizations with special focus on social enterprises.	Use of happiness management as a tool to face organizational challenges of a social nature.
Doherty *et al.* (2014)	1015	Study social enterprise through hybrid organization.	Study how happiness management is implemented within the social enterprise.

Note. Own elaboration through the revision of 391 articles.

Finally, there is the thematic area of skills and training where 41 articles of the 391 analyzed are identified. In this area it is evident that human capital has gained relevance within the literature of the management of happiness in entrepreneurship, becoming essential to monitor the skills and training of entrepreneurs and their workers. Their adaptation to change and their adaptation to the new business requirements at all times focusing on the individual well-being of the worker or entrepreneur, to identify the skills they have and the gaps or limitations to help them overcome and find themselves well in their job. It also shows the role of universities as promoters of entrepreneurship within the academic environment and the promotion of entrepreneurial intention.

Table 7 presents the three main articles within this area, in which we can highlight the interest in how companies are trained for digital transformation, dynamic skills and entrepreneurial intentions. In addition, proposals on how happiness management could be applied in the context of each of these investigations are included.

Table 7

Most cited articles on skills and training, main contribution and application of happiness management in entrepreneurship of the most cited articles of the literature review

Authors	No. of citations	Main contribution	Application of
Warner and	1012	Investigar cómo las empresas tradicionales se capacitan para adaptarse a la transformación digital.	Ver cómo se adaptan las capacidades a la transformación digital integrando la gestión de la felicidad en este proceso.
Teece (2014b)	1006	Analyze the dynamic capabilities of entrepreneurs.	Introduce training on happiness management within the dynamic capacities of entrepreneurs.

Authors	No. of citations	Main contribution	Application of
Bae *et al.*	938	Estudiar la relación entre la educación en emprendimiento y las intenciones emprendedoras.	Añadir el estudio de cómo influye la gestión de la felicidad desde la educación emprendedora y su efecto en las intenciones emprendedoras.
(2014)	938	Study the relationship between entrepreneurship education and entrepreneurial intentions.	Add the study of how happiness management influences entrepreneurial education and its effect on entrepreneurial intentions.

Note. Own elaboration through the revision of 391 articles.

Contributions to the-state-of-the-art

This research yields data on the reference articles within this field of study. At the same time, it shows the progression of the research field over the last ten years and how it has gained weight progressively, contributing to valuable information on what are the most popular topics in this field, mainly the works related to management and business organization (Besharov and Smith, 2014; Nambisan *et al.*, 2019) and *the works related to the different business models* (Falk *et al.*, 2018; Schot and Steinmueller, 2018; Acs *et al.*, 2015).

Among the managerial contributions of this work, there is a growing interest in issues such as creativity and innovation (Anderson *et al.*, 2014) within the strategies of happiness management in the company. It also highlights the need to create business sense (Maitlis and Christianson, 2014; Nambisan *et al.*, 2017) through emotions and complex processes that involve the employee and entrepreneur. Also interesting is the way in which financing can be obtained (Navarro *et al.*, 2024) for these ventures. In this case, alternatives launched by companies that go beyond conventional sources of financing are identified, linking the concept of financing to innovation that was previously discussed in the sphere of the company's own management. It is also interesting to monitor the skills and training of human capital when it comes to entrepreneurship (Liñán and Fayolle, 2015; Schlaegel and Koenig, 2014).

It highlights the types of entrepreneurship, since the social (Battilana and Lee, 2014) and digital character (Nambisan, 2017) are key points for new ventures, therefore the management of happiness within the company must align with these realities if it is to be successful. Finally, there would be social contributions; within this type of contributions it should be noted that the social aspect is a fundamental element within the management of happiness in university enterprises. This results in that the enterprises are acquiring a strong social character (Doherty *et al.*, 2014) in order to adapt to the demands of society. In addition, this social character of the enterprises is directly linked to the management of happiness within the company and, consequently, to the happiness of the customers, making the entire business ecosystem end up being in harmony.

Conclusions

This research concludes in a theoretical way with the importance of happiness management in the university entrepreneurial landscape. Therefore, it is determined that this topic has gained relevance in the last 10 years, evidencing the need to incorporate mechanisms of support and promotion of entrepreneurship from the different parts of the university. At the same time, it also highlights the value of having and working with the mechanisms of happiness management that have been subtly masked with other nomenclatures over the years, such as the management of emotions or the valuation of the investor's well-being according to the expected benefits. This need is met by literature reviews, as these texts serve as a guide for scholars and practitioners.

At a practical level, the lack of implementation of clear mechanisms of happiness management shows, on the one hand, the need to contemplate this type of management within the training of entrepreneurs and workers, in order to familiarize themselves with the concept and be able to contribute to the growth of this happiness in the workplace. This can be done from the university itself. This review of the literature has practical implications by presenting different cases on how to deal with problems of university entrepreneurs through the implementation of mechanisms of happiness management.

On the other hand, it also shows internal deficiencies at the business level, since it has not been given the recognition it deserves to happiness, a term that according to Aristotle is called the main purpose of the human being, i.e. it is the concept in which the sciences of administration and economy should revolve. Therefore, exposing different applications in specific contexts, as can be seen in table 2, 3, 4, 5 and 6, facilitates the employer to apply these happiness management strategies in his/her work environment. In this way, it is easier to address the inclusion of happiness management strategies within university entrepreneurship.

This research has as main limitation that it has been carried out only with the Web of Science database. Therefore, future lines of research are proposed to present a parallel work with Scopus and ProQuest databases in order to compare and enrich the results. It is also proposed to treat the management of happiness by linking it to consumer happiness, conducting cross-sectional studies.

References

Abreau, M. and Grinevich, V. (2013). The nature of academic entrepreneurship in the UK: Widening the focus on entrepreneurial activities. *Research Policy*, *42*, 408-422. http://dx.doi.org/10.1016/j.respol.2012.10.005

Acs, Z. J., Autio, E. and Szerb, L. (2015). National systems of entrepreneurship: Measurement issues and policy implications. En *Global Entrepreneurship, Institutions and Incentives*, 523-541. https://doi.org/10.1016/j.respol.2013.08.016

Ahlers, G. K. C., Cumming, D., Günther, C. and Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship Theory and Practice*, *39*(4), 955-980. https://doi.org/10.1111/etap.12157

Alonso-Garcia, J., Pablo-Martí, F. and Nunez-Barriopedro, E. (2021). Omnichannel Management in a B2B context: Concept, research agenda and bibliometric review. *International Journal of Industrial engineering and Management*, *12*(1), 1-12. http://doi.org/10.24867/IJIEM-2021-1-275

Anderson, N., Potočnik, K. and Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of management*, *40*(5), 1297-1333. https://doi.org/10.1177/0149206314527128

Aparicio, S., Audretsch, D. and Urbano, D. (2021). Governmental Support for Entrepreneurship in Spain: An Institutional Approach. *Hacienda Pública Española / Review of Public Economics*, *243*, 4/2022, 29-49. https://dx.doi.org/10.7866/HPE-RPE.22.4.2

Aparicio, S., Hughes, M., Audretsch, D. and Urbano, D. (2023). Incentivizing knowledge institutions for entrepreneurship and society. *International Journal of Entrepreneurial Behavior y Research*, 1355-2554. https://doi.org/10.1108/IJEBR-07-2022-0652

Audretsch, D. B. and Belitski, M. (2017). Entrepreneurial ecosystems in cities: establishing the framework conditions. *Journal of Technology Transfer*, *42*(5), 1030-1051. https://doi.org/10.1007/s10961-016-9473-8

Bae, T. J., Qian, S., Miao, C. and Fiet, J.O. (2014). The Relationship between Entrepreneurship Education and Entrepreneurial Intentions: A Meta-Analytic Review. *Entrepreneurship Theory and Practice*, *38*(2), 217-254. https://doi.org/10.1111/etap.12095

Battilana, J. and Lee, M. (2014). Advancing research on hybrid organizing. Insights from the study of social enterprises. *Academy of Management Annals*, *8*(1), 397-441. https://doi.org/10.5465/19416520.2014.893615

Battilana, J., Sengul, M., Pache, A. C. and Model, J. (2015). Harnessing productive tensions in hybrid organizations: The case of work integration social enterprises. *Academy of Management Journal*, *58*(6), 1658-1685. https://doi.org/10.5465/amj.2013.0903

Bel Durán, P., Lejarriaga Pérez de las Vacas, G. and Martín López, S. (2023). Nuevas fórmulas para promover el emprendimiento social Universitario aproximación a la Startups de estudiantes. *REVESCO. Revista de Estudios*

Cooperativos, *1*, 144. https://doi.org/10.5209/reve.88654

Belleflamme, P., Lambert, T. and Schwienbacher, A. (2014). Crowdfunding: Tapping the right crowd. *Journal of Business Venturing*, *29*(5), 585-609. https://doi.org/10.1016/j.jbusvent.2013.07.003

Besharov, M. L. and Smith, W. K. (2014). Multiple institutional logics in organizations: Explaining their varied nature and implications. *Academy of Management Review*, *39*(3), 364-381. https://doi.org/10.5465/amr.2011.0431

Bezanilla, M. J., García-Olalla, A., Paños-Castro, J. and Arruti, A. (2020). Developing the Entrepreneurial University: Factors of Influence. *Sustainability*, *12*, 842. https://doi.org/10.3390/su12030842

Binder, M. and Coad, A. (2010). *Life satisfaction and self-employment: A matching approach.* [Working paper, No. 1020] Papers on Economics and Evolution, Max-Planck-Institut für Ökonomik. https://bit.ly/4cH3akD

Boscán Carroz, M. C., Meleán Romero, R. A., Chávez Vera, K. J. and Calanchez Urribarri, A. (2023). Peruvian entrepreneurship in the framework of sustainable development. *Retos. Revista de Ciencias de la Administración y Economía*, *13*(26) 223-236. https://doi.org/10.17163/ret.n26.2023.03

Bull, M. and Ridley-Duff, R. (2019). Towards an appreciation of ethics in social enterprise business models. *Journal of Business Ethics*, *159*, 619-634. https://doi.org/10.1007/s10551-018-3794-5

Cardella, G. M., Barba-Sánchez, V., Meseguer-Martinez, A., Hernández-Sánchez, B. and Sánchez-García, J. C. (2024). Analyzing university students' entrepreneurial intentions under the influence of the COVID-19 pandemic. *International Entrepreneurship and Management Journal*, 1-24. https://bit.ly/3Ta3gdx

Castro-Martínez, A. and Díaz-Morilla, P. (2020). Comunicación interna y gestión de bienestar y felicidad en la empresa española. *Profesional de la información*, *29*, 3. https://doi.org/10.3145/epi.2020.may.24

Cuesta-Valiño, P., Gutiérrez-Rodríguez, P. and Contreras-Contreras, P. (2023a). Consumer happiness: origin and development of the concept. *Anduli*. *23*, 83-98. http://doi.org/10.12795/anduli.2023.i23.05

Cuesta-Valiño, P., Loranca-Valle, C., Nuñez-Barriopedro, E. and Penelas-Leguía, A. (2023b). Model based on service quality, satisfaction and trust, the antecedents of federated athletes' happiness and loyalty. *Journal of Management Development*, *42*, 6. https://doi.org/10.1108/JMD-02-2023-0056

Cuevas-Estrada, J. and Sánchez-Bayón, A. (2024). Happiness management: bibliometrics and trends. *ANDULI Revista Andaluza de Ciencias Sociales*, *26*, 1-19. https://doi.org/10.12795/anduli.2024.i26.01

Çil, E., N. A., Erkan, S. and Mogaji, E. (2023). Social media marketing and consumer behaviour in the new normal: the relationship between content and interaction. *International Journal of Internet Marketing and Advertising*, *19*(3/4), 328-349. https://doi.org/10.1504/ijima.2023.133315

Del Brío González, J. A., Mitre Aranda, M. and Barba-Sánchez, V. (2022). Environmental awareness and the entrepreneurial intention in university students: Direct and mediating effects. *The International Journal of Management Education*, *20*, 100719. https://doi.org/10.1016/j.ijme.2022.100719

Doherty, B., Haugh, H. and Lyon, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. *International Journal of Management Reviews*, *16*(4), 417-436. https://doi.org/10.1111/ijmr.12028

Elías Zambrano, R., Jiménez-Marín, G., Galiano-Coronil, A. and Ravina-Ripoll, R. (2021). Children, media and food. A new paradigm in food advertising, social marketing and happiness management. *International Journal of Environmental Research and Public Health*, *18*(7), 3588. https://doi.org/10.3390/ijerph18073588

Escalante Castro, C. A., Figueroa Varela, L. K., y Sandoval Herrera, J. P. (2024). Emprendimiento en el contexto educativo colombiano. *Revista Venezolana de Gerencia*, *29*(11), 155-169. https://doi.org/10.52080/rvgluz.29.e11.9

Etzkowitz, H. (2017). Innovation Lodestar: The entrepreneurial university in a stellar knowledge firmament. *Technological Forecasting y Social Change*, *123*, 122-129. http://dx.doi.org/10.1016/j.techfore.2016.04.026

Falk, A., Becker, A., Dohmen, T., Enke, B., Huffman, D. and Sunde, U. (2018). Global evidence on economic preferences, *The Quarterly Journal of Economics*, *133*(4), 1645-1692. https://doi.org/10.1093/qje/qjy013

Foss, N. J. and Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management*, *43*(1), 200-227. https://doi.org/10.1177/0149206316675927

Frey, B. S. and Benz, M. (2003). *Being independient is a great thing: Subjective evaluations on self-emplo-*

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

yment and hierarchy. [CESifo Working Paper, No, 959] Center for Economic Studies and ifo Institute (CESifo), Munich. http://hdl.handle.net/10419/76340

González-Argote, J., Sánchez-Castillo, V. and Gómez Cano, C. A. (2024). Green economy: Current trends and future directions in the context of sustainable development. *Suma de Negocios, 15*(32), 70-80. https://doi.org/10.14349/sumneg/2024.V15.N32.A8

González Moreno, A., López Muñoz, L. and Pérez Morote, R. (2019). The role of higher education in development of entrepreneurial competencies: some insights from Castilla-La Mancha University in Spain. *Administrative Sciences*, *9*(16). https://doi.org/10.3390/admsci9010016

Gutiérrez-Rodríguez, P., Cuesta-Valiño, P., Ravina-Ripoll, R. and García-Henche, B., (2023). Purchase intention of fashion brand retailers: a journey through consumer engagement and happiness. *Management Decision*, *62*(2). https://doi.org/10.1108/MD-04-2023-0541

Hsu, P. H., Tian, X. and Xu, Y. (2014). Financial development and innovation: Cross-country evidence. *Journal of Financial Economics*, *112*(1), 116-135. https://doi.org/10.1016/j.jfineco.2013.12.002

Jiménez-Marín, G., Elías Zambrano, R., Galiano-Coronil, A. and Ravina-Ripoll, R. (2020). Food and beverage advertising aimed at Spanish children issued through mobile devices: a study from a social marketing and happiness management perspective. *International Journal of Environmental Research and Public Health*, *17*(14), 5056. https://doi.org/10.3390/ijerph17145056

Kautonen, T., van Gelderen, M. and Fink, M. (2015). Robustness of the Theory of Planned Behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, *39*(3), 655-674. https://doi.org/10.1111/etap.12056

La Rubia, M. D., Rus-Casas, C., Bueno-Rodríguez, S., Aguilar-Peña, J. D. and Eliche-Quesada, D. (2021). Study of the Entrepreneurial Attitudes of STEM Students. *IEEE Access*, *99*, 1-1. https://doi.org/10.1109/ACCESS.2021.3103118

Li, E.Y, Chang, F. K. and Jan, A. (2023). Understanding the virtual experiential value and its effect on travel intention. *International Journal of Internet Marketing and Advertising*, *19*(3-4) 263-285. https://doi.org/10.1504/ijima.2023.133340

Liñán, F. and Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, *11*, 907-933. https://doi.org/10.1007/s11365-015-0356-5

Madero-Gómez, S., Ortiz-Mendoza, O.E. and Guerra-Leal, E. M. (2021). Flexibility strategies and their relationship with workplace environment, dedication and intelectual challenge. *CienciaUAT*, *15*(2), 122-134. https://doi.org/10.29059/cienciauat.v15i2.1462

Maitlis, S. and Christianson, M. (2014). Sensemaking in organizations: Taking stock and moving forward. *Academy of Management Annals*, *8*(1), 57-125. https://doi.org/10.5465/19416520.2014.873177

Martin, C. J. (2016). The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism? *Ecological Economics*, *121*, 149-159. https://doi.org/10.1016/j.ecolecon.2015.11.027

Martínez-Campillo, A. Sierra-Fernández, M. P. and Fernández-Santos, Y. (2019). Service-learning for sustainability entrepreneurship in rural areas: what is its global impact on business university students? *Sustainability*, *11*, 5296. https://doi.org/10.3390/su11195296

Martínez-Falcó, J., Sánchez-García, E., Marco-Lajara, B. and Millán-Tudela, M. (2024). Enhancing employee wellbeing and happiness management in the wine industry: unveiling the role of green human resource management. *BMC Psycholgy, 12*, 203. https://doi.org/10.1186/s40359-024-01703-y

Martínez Martín, M. I., Guilló Rodríguez, N. and Santero Sánchez, R. (2019). La Economía Social en el emprendimiento de base tecnológica en España. Un análisis cualitativo. *CIRIEC-España, Revista de Economía Pública, Social y Cooperativa*, *96*, 65-90. https://doi.org/10.7203/CIRIEC-E.96.12969

Melendo Rodríguez-Carmona, L., Yustres Duro, P. and Cuesta-Valiño, P. (2024). Keys to usability in retail e-commerce: A systematic review of the literature. *UCJC Business y Society Review*, *21*(80), 778-815. https://dx.doi.org/10.3232/UBR.2024.V21.N1.17

Mortan, R.A., Ripoll, P., Carvalho, C. and Bernal, C. (2014). Effects of emotional intelligence on entrepreneurial intention and self-efficacy. *Journal of Work and Organizational Psychology*, *20*, 97-2014. Https://dx.doi.org/10.1016/j.rpto.2014.11.004

Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, *41*(6), 1029-1055. https://doi.org/10.1111/etap.12254

Nambisan, S., Lyytinen, K., Majchrzak, A. and Song, M. (2017). Digital innovation management: Reinventing innovation management research in a digital world. *MIS Quarterly*, *41*(1), 223-238. https://doi.org/10.25300/MISQ/2017/41:1.03

Nambisan, S., Wright, M. and Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. *Research Policy*, *48*(8), 103773. https://doi.org/10.1016/j.respol.2019.03.018

Navarro, E., Ramírez, J., Yepes, I., y Roa, J. (2024). Determinación del nivel de organización financiera de los emprendedores en Barranquilla, Colombia. *Revista De Ciencias Sociales*, *30*(2), 233-243. https://doi.org/10.31876/rcs.v30i2.41902

Navarro, E., Ramírez, J., Yepes, I., y Roa, J. (2024). Determinación del nivel de organización financiera de los emprendedores en Barranquilla, Colombia. *Revista De Ciencias Sociales*, *30*(2), 233-243. https://doi.org/10.31876/rcs.v30i2.41902

Pinzón-Castro, S.Y. and Maldonado-Guzmán, G. (2023). Effects of sustainable culture on CSR and financial performance in manufacturing industry. *Retos. Revista de Ciencias de la Administración y Economía*, *13*(26), 191-203. https://doi.org/10.17163/ret.n26.2023.01

Piperopoulos, P. and Dimov, D. (2015). Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. *Journal of Small Business Management*, *53*(4), 970 - 985. https://doi.org/10.1111/jsbm.12116

Rando-Cueto, D., Núñez-Sánchez, J-M., Fernández-Díaz, E. and De-las-Heras-Pedrosa, C. (2023). Bibliometric Analysis, Evolution and Trends of Happiness Management in Scientific Literature. *ANDULI*, *23*, 177-199. http://doi.org/10.12795/anduli.2023.i23.10

Ravina-Ripoll, R., Díaz-García, G.A., Ahumada-Tello, E. and Galván-Vela, E. (2024). Emotional wage, happiness at work and organisational justice as triggers for happiness management. *Journal of Management Development*, *43*(2), 236-252. https://doi.org/10.1108/JMD-02-2023-0046

Ravina-Ripoll, R., Balderas-Cejudo, A., Núñez-Barriopedro, E. and Galván-Vela, E. (2023). Are chefs happiness providers? Exploring the impact of organisational support, intrapreneurship and interactional justice from the perspective of happiness management. *International Journal of Gastronomy and Food Science*, 100818, https://doi.org/10.1016/j.ijgfs.2023.100818

Ravina-Ripoll, R., Romero-Rodríguez, L.M. and Ahumada-Tello, E. (2022). Guest editorial: Happiness management: key factors for sustainability and organizational communication in the age of Industry 4.0, *Corporate Governance*, *22*(3), 449-457. https://doi.org/10.1108/CG-05-2022-576

Ravina-Ripoll, R., Foncubierta-Rodríguez, M. J. and López-Sánchez, J. A. (2021a). Certification Happiness Management: an integral instrument for human resources management in post-COVID-19 era. *International Journal of Business Environment*, *12*(3), 287-299. https://doi.org/10.1504/IJBE.2021.116606

Ravina-Ripoll, R., Nunez-Barriopedro, Almorza-Gomar, D. and Tobar-Pesantez, L.B. (2021b). Happiness management: a culture to explore from Brand orientation as a sign of responsable and sustainable production. *Frontiers in Psychology*, *12*, 727845. https://doi.org/10.3389/fpsyg.2021.727845

Ravina-Ripoll, R., Marchena Dominguez, J. and Montañés Del Rio, M.Á. (2019). Happiness Management in the age of Industry 4.0/Happiness Management en la época de la Industria 4.0. *Retos, Revista de Ciencias de la Administración y Economía*, *9*(18), 183-195. https://doi.org/10.17163/ret.n18.2019.01

Ravina-Ripoll, R., Villena Manzanares, F. and Gutiérrez Montoya, G.A. (2017). A theoretical review to improve outcomes of innovation in enterprises from the perspective of "Happiness Management". *Retos. Revista de Ciencias de la Administración y Economía*, *14*(8), 113-129. http://dx.doi.org/10.17163/ret.n14.2017.06

Repovienė, R. and Pažėraitė, A. (2023). Content marketing towards customer value creation. *International Journal of Internet Marketing and Advertising*, *18*(2/3), 263. https://doi.org/10.1504/ijima.2023.129666

Robb, A.M. and Robinson, D.T. (2014). The capital structure decisions of new firms. *The Review of Financial Studies*, *27*(1), 153-179. https://doi.org/10.1093/rfs/hhs072

Rosenblat, A. and Stark, L. (2016). Algorithmic labor and information asymmetries: a case study of Uber's Drivers. *International Journal of Communication*, *10*, 27. http://dx.doi.org/10.2139/ssrn.2686227

Ruiz-Navarro, J., Diánez-González, J. P., Franco-Leal, N., Sánchez-Vázquez y J. M. and Camelo-Ordaz, C. (2021). *Informe GUESSS España*

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

2021. El espíritu emprendedor de los estudiantes universitarios. https://bit.ly/4dz9GLs

Salas-Velasco, M. (2023). Propensity for Self-employment in a Model of Occupational Choice: Evicende from a Cohort of Recent University Graduates in Spain. *Sustainability*, *15*, 3400. https://doi.org/10.3390/su15043400

Schlaegel, C. and Koenig, M. (2014). Determinants of Entrepreneurial Intent: A Meta-Analytic Test and Integration of Competing Models. *Entrepreneurship Theory and Practice*, *38*(2), 291-332. https://doi.org/10.1111/etap.12087

Schot, J. and Steinmueller, W.E. (2018). Three frames for innovation policy: RyD, systems of innovation and transformative change. *Research Policy*, *47*(9), 1554-1567. https://doi.org/10.1016/j.respol.2018.08.011

Shir, N., Nikolaev, B.N. and Wincent, J. (2019). Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness. *Journal of Business Venturing*, *34*(5), 105875, https://doi.org/10.1016/j.jbusvent.2018.05.002

Sierra-Casanova, C., Lechuga Sancho, M.P. and Ramos-Rodríguez, A.R. (2024). What science says about entrepreneurs' well-being: a conceptual structure review. *Academia Revista Latinoamericana de Administración*, 1012-8255, https://doi.org/10.1108/ARLA-01-2024-0005

Siegel, D.S. and Wright, M. (2015). Academic entrepreneurship: time for a rethink? *Brit J Manage*, *26*, 582-595. https://doi.org/10.1111/1467-8551.12116

Spigel, B. (2017). The Relational Organization of Entrepreneurial Ecosystems. *Entrepreneurship Theory and Practice*, *41*(1), 49-72. https://doi.org/10.1111/etap.12167

Stam, W., Arzlanian, S. and Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of business venturing*, *29*(1), 152-173. https://doi.org/10.1016/j.jbusvent.2013.01.002

Teece, D. J. (2014a). A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies*, *45*, 8-37. https://doi.org/10.1057/jibs.2013.54

Teece, D. J. (2014b). The foundations of enterprise performance: Dynamic and ordinary capabilities in an (economic) theory of firms. *Academy of Management Perspectives*, *28*(4), 328-352. https://doi.org/10.5465/amp.2013.0116

Vega Gómez, F.I., Miranda González, F.J., Chamorro Mera, A. and Pérez Mayo, J.A. (2019). Valuing and ordering the determining factors of academic entrepreneurship in Spain according to gender. *Revista de Estudios Empresariales. Segunda Época*, *1*, 41-60. https://dx.doi.org/10.17561/ree.v2019n1.3

Ward, A., Hernández-Sánchez, B. and Sánchez-García, J.C. (2019). Entrepreneurial Intentions in Students from a Trans-National Perspective. *Administrative Sciences*, *9*, 37. https://doi.org/10.3390/admsci9020037

Warner, K. S. and Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, *52*(3), 326-349. https://doi.org/10.1016/j.lrp.2018.12.001

Zheng, H., Li, D., Wu, J. and Xu, Y. (2014). The role of multidimensional social capital in crowdfunding: A comparative study in China and US. *Information y Management*, *51*(4), 488-496. https://doi.org/10.1016/j.im.2014.03.003

Zupic, I. and Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, *18*(3), 429-472. https://doi.org/10.1177/1094428114562629

october 2024-march 2025
pp. 271-282
https://doi.org/10.17163/ret.n28.2024.06

Innovation Climate Scale: psychometric analysis in Peruvian workers

Escala de Clima de Innovación: análisis psicométrico en trabajadores peruanos

Sergio Dominguez-Lara
Professor at Universidad de San Martín de Porres, Peru
sdominguezl@usmp.pe
https://orcid.org/0000-0002-2083-4278

Manuel Fernández-Arata
Professor at Universidad de San Martín de Porres, Peru
mfernandeza1@usmp.pe
https://orcid.org/0000-0002-8582-9904

Patricia Bárrig-Jó
Professor at Pontificia Universidad Católica del Perú, Peru
pbarrig@pucp.pe
https://orcid.org/0000-0003-4685-5760

Received on: 23/05/24 **Revised on:** 08/06/24 **Approved on:** 23/08/24 **Published on:** 01/10/24

Abstract: the changes caused by the COVID-19 pandemic pushed organizations to attempt to remain current and competitive. Thus, the ability to respond to new demands and adapt to shifting conditions was an unavoidable requirement, which implies innovating in the development of their processes. In that sense, the growing importance of innovative work behaviors in the development of organizations has driven researchers to investigate mechanisms that foster such behaviors in workers. The objective of this study Is to analyze the psychometric properties of the Innovation Climate Scale (ICS). The instrumental study involved 273 Peruvian workers (50.916 % male) ranging in age between 22 and 76 years old (Mean = 45.224), employed mostly in the private sector (75.092 %). The psychometric analysis explored item clarity and relevance by means of assessment by expert judges (content validity). Internal structure was assessed via confirmatory factorial analyses, both of oblique models and bi-factor. Finally, scoring reliability (alpha coefficient) and construct reliability (omega coefficient) were estimated. This study finds the ICS items to be clear and relevant, a greater empirical support for the unidimensional model as its internal structure, and an adequate reliability. In conclusion there is favorable evidence of validity and reliability for the application of the ICS in Peruvian companies as a useful tool to measure the innovative climate perceived by its workers, providing information for decision making and planning of innovation strategies and organizational creativity.

Keywords: innovation, innovation climate, workers, content analysis, factorial analysis, multivariate analysis, structural equation models, reliability analysis.

Suggested citation: Dominguez-Lara, S., Fernández-Arata, M. and Bárrig-Jó, P. (2024). Innovation Climate Scale: psychometric analysis in Peruvian workers. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 271-282. https://doi.org/10.17163/ret.n28.2024.06

Resumen: los cambios, producto de la pandemia, impulsaron a las organizaciones a mantenerse vigentes y competitivas. Por ello fue necesaria la capacidad para responder a las nuevas demandas para adaptarse al cambio, lo que implica innovar en el desarrollo de sus procesos. En ese sentido, la creciente importancia del comportamiento laboral innovador en el desarrollo de las organizaciones impulsó a los investigadores a buscar los mecanismos que estimulen dicho comportamiento en los trabajadores. Por lo expuesto, esta investigación tuvo como objetivo analizar las propiedades psicométricas de la Escala de Clima de Innovación (ECI). El estudio instrumental se realizó en 273 trabajadores peruanos (50.916 % hombres) entre 22 y 76 años (Media = 45.224) pertenecientes en su mayoría a empresas privadas (75.092 %). En cuanto al análisis psicométrico se exploró claridad y relevancia de los ítems por medio de la valoración de jueces expertos (validez de contenido), la estructura interna se evaluó mediante el análisis factorial confirmatorio tanto de los modelos oblicuos como bifactor, y por último se estimó la confiabilidad de las puntuaciones (coeficiente alfa) y del constructo (coeficiente omega). En cuanto a los hallazgos, los ítems de la ECI son claros y relevantes, el modelo unidimensional tiene mayor respaldo empírico como estructura interna, y la confiabilidad es adecuada. Se concluye que la ECI tiene evidencias favorables de validez y confiabilidad para su aplicación en empresas peruanas, constituyendo una herramienta útil para conocer el clima innovador percibido por sus trabajadores, aportando información para la toma de decisiones y planeamiento de estrategias de innovación y creatividad organizacional.

Palabras claves: innovación, clima de innovación, trabajadores, análisis de contenido, análisis factorial, análisis multivariado, modelos de ecuaciones estructurales, análisis de confiabilidad.

Introduction

Emergency measures to deal with the COVID-19 pandemic required changes in the activities and processes of public companies and institutions, as well as in the behavior of consumers and users. For example, social distancing and mobility restrictions disrupted business transactions and led to layoffs and job losses. While some areas of work, such as health services and the sale of basic products, maintained in-person care, albeit with limitations, other jobs moved to virtuality. For its part, electronic commerce had a boost when digital platforms were implemented to meet economic activity and consumer needs (Cámara Peruana de Comercio Electrónico, 2021; Lizarzaburu, 2023; United Nations Conference on Trade and Development, 2021).

Innovation is fundamental to the productivity, profitability and sustainable development of any organization; also, globalization, technological development and the tendency to associate with the public and private sectors have significantly increased the importance of innovation (Chan *et al.*, 2014). For organizations to remain current and competitive in ever-changing environments, they must respond to new demands and the ability to innovate and adapt to these changes (Kodden, 2020). Innovation in organizations can be understood both by the innovative results themselves, and by the process by which innovative practices are developed and established in the organization (Pichlak, 2016).

The innovation climate could be positively affected by a supportive climate, by the positive emotional response to change and by being subject to risk-taking in the workplace (Ye *et al.*, 2022). There are factors that support or limit the development of innovation climates within companies, whose identification can help us to understand the benefits that an innovation climate offers to the organization and its workers, as well as to know those contingencies that occur between the innovation climate, the team, factors and organizational results (Newman *et al.*, 2020). Precisely, one of these factors is the organizational climate, which refers to the lines of interaction established in the organization and the psychosocial environment that characterizes it, while at the individual or psychological level it denotes the perception that workers have about the climate of the workplace in general, or the area in which they work (Ehrhart and Schneider, 2016; Patterson *et al.*, 2005).

At the organizational level, the innovative climate refers to organizations that promote and guide their efforts to encourage the innovative behavior of their workers, rewarding their performance and investing in their innovative proposals (Newman *et al.*, 2020). At the individual level, the innovative climate is defined as the cognitive representations of the organizational environment that workers have as a result of psychologically significant interpretations of the context (Baltes *et al.*, 2009). Thus, the person would behave according to what he/she considers relevant and expected.

Considering the individual-psychological perspective, Scott and Bruce (1994) defined the innovative organizational climate as the degree to which members of a workplace perceive a cli-

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

mate that supports innovation. These authors evaluated an explanatory model of innovative worker behavior, finding that perceptions of an organizational climate that supports innovation have an effect on such behavior, and act as a mediating variable in the influence of leader-worker interactions and systematic problem-solving style on individuals' innovative behavior.

For West and Sacramento (2012), creative and innovative organizations are places where most of their members belief in the organization's inspiring vision and the achievements it wants to achieve. Consistency, norms that foster diversity, continuous development, membership and leadership are some of the hallmarks of innovative organizations (Kanter, 1996; Siegel and Kaemmerer, 1978). Moreover, there is evidence that the innovative climate depends, in part, on interactions with the leader and colleagues as well as on organizational culture (Sarros *et al.,* 2008). In addition, transformational leadership is related to worker performance through the climate of innovation (Brimhall, 2019) and creativity (Mumford *et al.,* 2023). Other elements that promote innovation and creativity in an organization are strategies (institutional mission, means to achieve goals), incentives to innovate (recognition, availability of resources, consideration of ideas) and shared communication in the organization (between areas and working groups, decision-making information) (Carmona *et al.,* 2020).

Hence, because of the characteristics of organizations, as well as the perspective from which the innovative organizational climate is defined, there are various ways to measure the construct (Isaksen, 2023). For example, Patterson *et al.* (2005) developed and validated an organizational climate measure that includes the institution's administrative practices as well as the organization's productivity and innovation, while Siegel and Kaemmerer (1978) constructed a scale to assess workers' perception of innovation support in their workplaces by identifying three dimensions, creativity support, difference tolerance, and personal engagement.

For their part, Scott and Bruce (1994) proposed the Innovative Climate Scale (ICS) to evaluate organizational support for innovation with a modified version based on two dimensions of the scale of Siegel and Kaemmerer (1978), support for creativity and tolerance for differences. In addition, the authors added questions to assess the perceived rewards for innovation at the organizational level and the degree to which people believe the resources available are adequate to achieve innovation goals. To evaluate the structure of the 26 items of their scale, they performed an exploratory factor analysis with the main components of the Varimax extraction and rotation method.

When evaluating a two-dimensional structure, they retained 22 of the initial 26 items, as they had factor loads above .40 and were factorially complex, i.e., they loaded by more than one factor at a time. In that sense, they identified a first factor composed of 16 items, which they called *support for innovation* which explained 31.67% of the variance. This dimension assesses whether an organization's members perceive it as open to change, tolerant of diversity, and supportive to search for new ideas. The second factor, *resource provision*, had six items that measured the degree to which human resources, funding and time in the organization are perceived as adequate by workers, explaining 15.74% of the variance. All items had factor loads between .52 to .80 and Cronbach's alpha was .92 in the innovation support dimension and .77 in the resource supply dimension.

The ICS is one of the most requested instruments to evaluate the innovation climate (Newman *et al.,* 2020), and was used along with other variables, such as transformational leadership and organizational innovation (Jung *et al.,* 2003), organizational culture (Sarros *et al.,* 2008), or creativity and climate of support for innovation (Khalili, 2016). While it has no known psychometric studies, one paper reported Cronbach's alpha coefficients of .94 for innovation support and .76 for resource provision (Sarros *et al.,* 2008), while others assumed its one-dimensionality, reporting adequate reliability Hence, the aim of this paper is to analyze the psychometric properties of ICS in Peruvian workers because in recent years companies are focusing their attention on the creation of a more favorable organizational climate to promote the innovative behavior of their workers, i.e., how workers perceive their work environment (Ye *et al.*, 2022). Among the various implications of this situation, is the need to have evaluation tools with psychometric evidence, validity and reliability, to assess the climate of innovation present in organizations.

This study is important at the applied level because the use of an instrument, in a context and population different from those of the original study, requires evidence of both validity and reliability to ensure its applicability. In addition, having an innovation climate measurement scale is an important resource for developing the innovative behavior of its members (Dhar, 2015), and can contribute to knowing the degree to which employees in the country perceive their organizations as open to change, which support new ideas with tolerance to the diversity of its members, as well as the degree of agreement with the adequacy of their resources. It is also possible to know the factors that support or limit the development of innovation climates, which would facilitate understanding the benefits and disadvantages of the innovation climate, and its organizational and individual implications. Thus, a measure with appropriate psychometric properties would allow to know and understand the innovation climate of a company so that professionals develop actions that promote innovation within the organization (Newman *et al.*, 2020).

The increasing and significant importance of innovative work behavior in the development and survival of competitive organizations has prompted researchers to look for mechanisms that stimulate this type of behavior in employees (Afsar and Umrani, 2019). In this sense, several studies highlight the need to create an organizational climate structure that supports and provides resources for the development of innovation, tolerating risk, due to its significant influence on the innovative work behavior of employees (Afsar and Umrani, 2019; Shanker *et al.*, 2017). The model of social interactionism on which the study is based emphasizes that leadership, working group relationships and problem solving directly or indirectly affect individual innovative behavior through perceptions of innovation climate (Scott and Bruce, 1994).

On the other hand, it is justified at a methodological level because, in addition to the original study, there are no other scientific publications on evidence of psychometric validity of the Innovative Climate Scale (Scott and Bruce, 1994) in national and international contexts, so providing psychometric evidence would legitimize its use both in the context of professional and academic application, since only empirical studies were found whose use of the ECI would not be conclusive because the validity evidences are necessary conditions to properly interpret the results (American Educational Research Association *et al.*, 2014), and the reliability estimate does not replace the validity (Cortina, 1993). Likewise, although some instruments use inverted items, the study of their impact on their factor structure is relevant (Dominguez-Lara *et al.*, 2019), since the literature recommends dispensing with such items (Suárez-Álvarez *et al.*, 2018), because sometimes they are usually eliminated during the research process (*Sánchez-Villena et al.*, 2021). Also, in view of the potential association between dimensions, it is necessary to explore the possible presence of a global factor through bifactor modeling (Rodríguez *et al.*, 2016).

Based on the above, as a research hypothesis it is established that the items are representative of the construct (hypothesis 1), an internal structure of two dimensions predominates (hypothesis 2), and presents adequate reliability magnitudes (hypothesis 3).

Materials and method

Design

This is a non-experimental and cross-sectional study. Specifically, it is an instrumental study (Ato *et al.*, 2013) that analyzes the psychometric properties, particularly evidence of content validity and internal structure, as well as reliability, of ICS in Peruvian workers.

Participants

273 Peruvian workers between 22 and 76 years of age were evaluated (*Average* = 45,224; Standard deviation = 12,794). Of the total, 75,092% (n = 205) worked in private for-profit companies. The characteristics of gender, occupation of the

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

participants, type of employment contract, range of years working in the institution, modality of work and number of workers in the company are shown (table 1).

Table 1

Characteristics of participants

Socio-demographic variable	Categories	Frequency (n)	Percentage (%)
Gender	Male	139	50.9
	Female	133	48.7
	I prefer not to say	1	0.4
Occupation	Analyst	16	5.9
	Assistant	29	10.6
	Specialist	62	22.7
	Coordinator / Supervisor	37	13.6
	Area Chief	34	12.4
	Manager / Manager	94	34.4
	Other	1	0.4
Employment contract	Fixed-term contract	71	26.0
	Contract indefinite term	130	47.6
	Entrepreneur	37	13.6
	Freelance or by product	18	6.6
	Other	17	6.2
Years working in the company or in the institution	1 to 5 years	114	41.7
	6 to 10 years	67	24.5
	11 to 15 years	39	14.2
	Ages 16 to 20	20	7.3
	Over 20 years	33	12.3
Modality of work	100% Presential	26	51.3
	Mixed or hybrid non-flexible	26	9.5
	Flexible hybrid	68	24.9
	Remote 100%	37	13.6
	Other	2	0.7
Number of workers in company	Self-employed	7	2.6
	Up to 10 (micro-enterprise)	47	17.2
	Up to 50 (small business)	51	18.7
	Up to 200 (medium-sized enterprise)	45	16.5
	More than 200 (large company)	123	45.0

Instruments

The Innovation Climate Scale created by Scott and Bruce (1994) was used, which measures how employees perceive the organizational innovation climate. It consists of 22 items (Annex 1) that are integrated into the dimensions called innovation support (16 items), which evaluates whether employees see the organization as open to change, support for new ideas and tolerance for diversity of members, and provision of resources (6 items), which measures the degree to which resources in the organization are perceived to be adequate. Each item is answered in an ordinal range from *totally disagree* (1) to *totally agree* (5).

Procedure

The translation was carried out according to specialized recommendations (Muñiz *et al.*, 2013). Permission was initially sought from the authors of the instrument to translate it into the Spanish language as spoken in Peru. Subsequently, the back-translation method was used, which consists of having a first translation of the instrument, including instructions, writing of items and response options of two Peruvian professionals, and then that version was translated again into English with two translators of English.

The evaluation protocol was built as a Google form. The first page included an informed consent, where in addition to the objective of the investigation, other aspects of the data collection process were mentioned, such as confidentiality in data handling, voluntary and anonymous participation, as well as the possibility of abandoning the evaluation if the person considers it so. The second section comprised the target scale of this work.

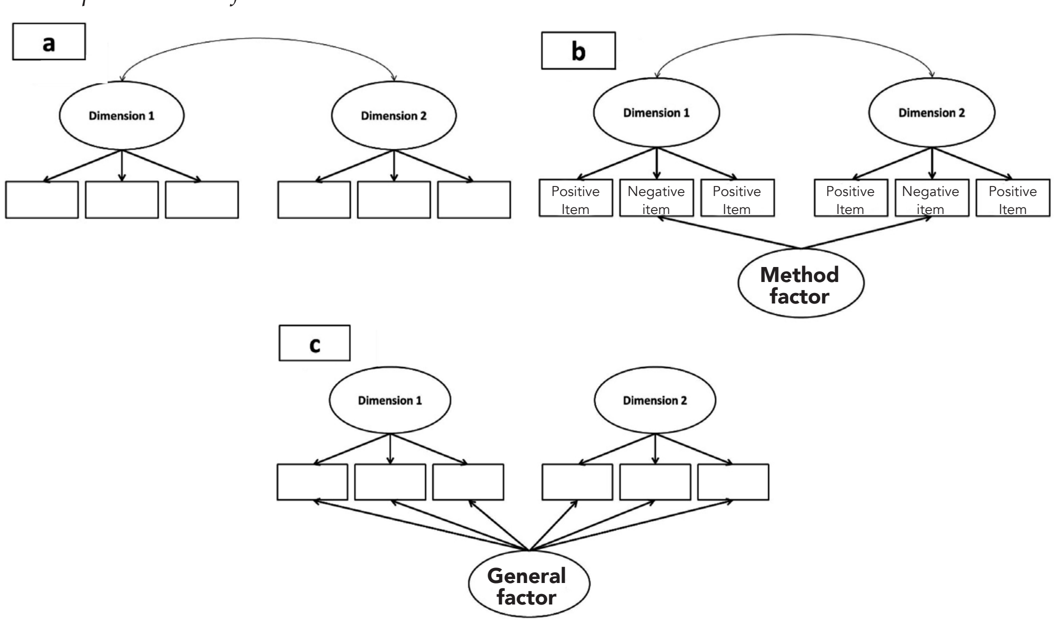
The evaluation was carried out according to the norms of the Helsinki Declaration (World Medical Association, 2017), as well as the code of ethics of the College of Psychologists of Peru (2018), and the Standards for Educational and Psychological Testing (American Educational Research Association *et al.*, 2014).

Data analysis

Validity findings based on the content of the items were explored based on the opinion of expert judges regarding clarity and relevance, and this opinion was quantified using the Aiken V coefficient including confidence intervals (CI; Penfield and Giacobbi, 2004). In both cases, the perceived clarity and relevance were significant when the lower limit of the CI was above .50 and the calculation was performed with a specialized module (Merino-Soto and Livia-Segovia, 2009).

The internal structure of the scale was analyzed under a factorial analytical approach, but in a preliminary way the presence of atypical scores (*outliers*) multivariate with the Mahalanobis distance and with *p*-values less than .001 were eliminated from the database. On the other hand, the univariate normality of the items was explored with asymmetry (< 2; Finney and DiStefano, 2006) and kurtosis (< 7; Finney and DiStefano, 2006), and the multivariate normality was evaluated with the Mardia's multivariate kurtosis coefficient (G2 < 70; Dominguez-Lara *et al.*, 2022).

Figure 1
Abbreviated representation of measurement models



Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

To assess the overall fit of the models, the magnitude of the ICS (> .90; McDonald and Ho, 2002), the RMSEA (< .08; Browne and Cudeck, 1993), and the SRMR. (< .08; Hu and Bentler, 1999) were considered. In addition, the convergent internal validity was evaluated with factor loads (> .50; Dominguez-Lara, 2018) and with the *average variance extracted by factor* (AVE > .37; Moral-de la Rubia, 2019), which represents the proportion of the variance explained by the construct. Likewise, the internal discriminant validity was evaluated according to the magnitude of the interfactorial correlations (φ < .80; Brown, 2015), and the comparison between the square of the interfactorial correlation (φ2), which indicates the shared variance between factors, and the *AVE*.

On the other hand, the relevance of GF in the bifactor model, i.e., if it explains more variance than the specific factors, was analyzed with complementary indicators: hierarchical omega of GF (ωH; > .75; Rodríguez *et al.*, 2016), hierarchical omega of the specific factors (ωHS; < .30; Smits *et al.*, 2015), and common variance explained (CVE > .60; Rodríguez *et al.*, 2016).

Finally, the coefficient α (> .70; Ponterotto and Charter, 2009) was used to assess the reliability of the scores, while the construct reliability was estimated with the coefficient ω (> .80; Raykov and Hancock, 2005).

Results and discussion

As for the evidence of item content validity, the judges indicate that the items are clear and relevant to the evaluation of the construct (Table 2). Hypothesis 1 (*the items are representative of the construct*) received support, and this would contribute to the operationalization of the construct in Peru, since according to experts the items appropriately reflect the main characteristics of the innovation climate.

Table 2

Validity of Innovation Climate Scale content

Innovation climate	Aiken´s V	
	Clarity (CI 95%)	Relevance
Support for innovation		
Item 1	.925 (.823, .970)	.980 (.900, .996)
Item 2	.888 (.777, .948)	.962 (.873, .989)
Item 3	.852 (.734, .923)	.980 (.900, .996)
Item 4	.852 (.734, .923)	.685 (.552, .793)
Item 5	.667 (.534, .778)	.740 (.610, .838)
Item 6	.962 (.873, .989)	.943 (.847, .980)
Item 7	.795 (.670, .881)	.777 (.649, .867)
Item 8	.907 (.800, .959)	.962 (.873, .989)
Item 9	.907 (.800, .959)	.925 (.823, .970)
Item 10	.980 (.900, 996)	.870 (.755, .936)
Item 11	.925 (.823, .970)	.740 (.610, .838)
Item 12	.925 (.823, .970)	.980 (.900, 996)
Item 13	.833 (.713, .910)	.907 (.800, .959)
Item 14	.943 (.847, .980)	.962 (.873, .989)
Item 15	.925 (.823, .970)	.943 (.847, .980)
Item 16	.777 (.649, .867)	.907 (.800, .959)
Provision of resources		
Item 1	.943 (.847, .980)	.943 (.847, .980)
Item 2	.943 (.847, .980)	.980 (.900, 996)

Innovation climate	Aiken´s V	
	Clarity (CI 95%)	Relevance
Provision of resources		
Item 3	.925 (.823, .970)	.925 (.823, .970)
Item 4	.925 (.823, .970)	.925 (.823, .970)
Item 5	.888 (.777, .948)	.777 (.649, .867)
Item 6	.907 (.800, .959)	.925 (.823, .970)

Note. M: Mean; SD: Standard deviation; g1: Asymmetry; g2: Kurtosis.

Preliminary ICS analysis suggests eliminating 11 cases that were considered multivariate outliers. After that, the items approach the univariate (table 3) and multivariate (G2 = 72,502) normality. This informs that the items usually do not show empirical distributions that significantly affect the estimation of the measurement models.

Table 3

Descriptive statistics of the Innovation Climate Scale

	M	*OF*	**g1**	**g2**		*M*	*OF*	**g1**	**g2**
Item 1	3.879	1.009	-0.620	-0.231	Ítem 12	2.795	1.321	0.142	-1.084
Item 2	4.048	0.932	-0.863	0.339	Ítem 13	2.674	1.364	0.256	-1.228
Item 3	4.103	0.893	-0.857	0.352	Ítem 14	3.271	1.188	-0.286	-0.676
Item 4	3.905	0.882	-0.331	-0.727	Ítem 15	3.425	1.253	-0.416	-0.877
Item 5	2.974	1.341	0.056	-1.191	Ítem 16	2.777	1.282	0.130	-1.021
Item 6	3.934	1.012	-0.874	0.330	Ítem 17	3.656	1.053	-0.645	-0.162
Item 7	2.766	1.354	0.245	-1.065	Ítem 18	3.260	1.145	-0.227	-0.643
Item 8	2.853	1.317	0.098	-1.062	Ítem 19	3.278	1.155	-0.228	-0.762
Item 9	2.901	1.321	0.010	-1.111	Ítem 20	3.176	1.215	-0.217	-0.796
Item 10	3.923	1.049	-0.808	0.010	Ítem 21	3.015	1.200	0.010	-0.826
Item 11	3.198	1.280	-0.312	-0.966	Ítem 22	3.267	1.178	-0.274	-0.709

Note. M: Mean; SD: Standard deviation; g1: Asymmetry; g2: Kurtosis.

The first model with two oblique factors (model 1), obtained unacceptable adjustment indices (table 4), as well as lower than expected factor loads (table 5). Subsequently, the model that included a MF (model 2) was evaluated and although it obtained adjustment indexes with adequate magnitudes compared to the previous model (table 4). It is noted that some items decrease their factorial load drastically in the presence of MF (e.g., item 4; table 5) and even reach negative magnitudes (e.g., item 5; table 5), which reflects the empirical strength of the MF. In this case, the items that make up the MF were eliminated. In this sense, it was corroborated that inverted items usually have insufficient psychometric evidence to retain them as elements of assessment of the construct (Dominguez-Lara *et al.*, 2019; Sánchez-Villena *et al.*, 2021; Suárez-Álvarez *et al.*, 2018).

In addition, it should be noted that although experts argued that the items were relevant for assessing the two dimensions of the innovation climate (*support for innovation* and *provision of resources*), when performing the empirical testing some did not show the association with the other items that allow the presence of well-defined dimensions to be inferred. For this reason, it is necessary to analyze the data beyond expert judgment, since it is only a source of evidence and does not determine the configuration of the instrument.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Table 4

Adjustment rates of measurement models

Measurement model	ICS	RMSEA	90% CI	SRMR.
Model 1	,391	,346	,339; ,353	,333
Model 2	,921	,128	,121; ,136	,067
Modified Model 2	,971	,142	,126; ,158	,043
Model 3	,993	,080	,061; ,100	,019

Table 5

Factor parameters of the Innovation Climate Scale items: Oblique and method factor model

	Model of two oblique factors		Two-factor model with a method factor		
	F1	F2	F1	F2	FM
Ítem 1	.770		.864		
Ítem 2	.796		.896		
Ítem 3	.592		.756		
Ítem 4	.369		.168		.520
Ítem 5	.441		-.255		.739
Ítem 6	.761		.880		
Ítem 7	.552		-.402		.806
Ítem 8	.678		-.308		.841
Ítem 9	.669		-.259		.836
Ítem 10	.772		.900		
Ítem 11	.402		.228		.560
Ítem 12	.420		-.359		.777
Ítem 13	.412		-.342		.783
Ítem 14	.793		.813		
Ítem 15	.818		.864		
Ítem 16	.445		-.066		.737
Ítem 17		.861		.887	
Ítem 18			.912		.899
Ítem 19		.882		.894	
Ítem 20		.138		-.107	.539
Ítem 21		.189		-.046	.530
Ítem 22		.629		.622	
R	.771		.885		
AVE	.394	.467	.365	.466	.502

Note. F1: Support for innovation; F2: Resource provision; FM: Factor Method; MEV: Mean variance extracted by factor.

Oblique model fitting without inverse items (modified model 2) improved, except for RMSEA (table 4), and while factor loads were moderate and high in all cases (table 6), the interfactor correlation was high and there is no empirical distinction between factors (φ^2 > AVE; table 6). The two-factor model (model 3) presented the best fit among all the evaluated models (table 4), and the statistics associated with the GF indicate that it has enough support to consider a total score obtained from the 11 items (table 6). Hypothesis 2 (*a two-dimensional internal structure predominates*) received no empirical support, as it is a one-dimensional scale. In this way, it is inferred that some items (*e. g.*, item 20) had no empirical relationship with the construct, while the positive items that were maintained after eliminating the inverted items, due to their psychometric malfunction, configured factors that presented a high association. Evidence was obtained by bifactor modeling that a more abbreviated and one-dimensional version of 11 items is recommended, which would be the definitive version. In this sense, at least in the study sample, the original dimensions (support for innovation and supply of resources) appear together, so it follows that the innovation climate requires both the support and the resources of the company to implement innovative ideas.

Table 6

Factor parameters of the Innovation Climate Scale items: Modified oblique and bifactor model

	Modified model of two oblique factors		Two-factor model		F2
	F1	F2	GF	F1	
Ítem 1	.858		.822	.822	
Ítem 2	.891		.802	.802	
Ítem 3	.742		.640	.640	
Ítem 6	.869		.826	.826	
Ítem 10	.887		.854	.854	
Ítem 14	.826		.859	.859	
Ítem 15	.864		.884	.884	
Ítem 17		.876	.837	.837	.160
Ítem 18		.903	.831	.831	.356
Ítem 19		.894	.810	.810	.471
Ítem 22		.642	.594	.594	.258
VME	.722	.699			
ϕ	.903				
ϕ2	.815				
ECV			.851		
ωh			.921		
ωhs				.064	.128

Note. F1: Support for innovation; F2: Resource supply; GF: Overall factor; AVE: Average variance extracted by factor; ϕ: Interfactorial correlation; ϕ2: Shared variance between factors; CVE: Common variance explained; ωH: Hierarchical omega; ωHS: Hierarchical omega of specific factors.

Finally, the reliability was high at the level of scores (α = .939) and construct (ω = .960), which supports hypothesis 3 (*has adequate reliability magnitudes*), indicating that the measure is necessary to assess the innovation climate.

Regarding the implications for the applied field, the evaluation of the innovation climate through a brief, one-dimensional measure and solid psychometric properties is important because it provides the company with information that would allow it to make decisions regarding the development of effective strategies to create work contexts that promote creativity and innovation, including the design of self-employment and challenging work, supporting creative activities, as well as granting benefits and rewards, all within a positive environment and effective climate for improving the quality of leadership and a work environment without negative conditions (Ye *et al.*, 2022).

For that reason, people in managerial positions could invest in the development of their human resources for a rapid adaptation of the

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

company to changing environments, inspiring employees through the explanation and creation of collective objectives, promoting achievement goals, and building friendly and trusting relationships (Usmanova *et al.,* 2023). Then, business practices could also be designed that allow employees to develop a knowledge management system associated with positive innovative behavior (Huang and Li, 2021), given the impact that knowledge sharing has on innovative behavior, where information technology can help reduce or eliminate communication barriers among employees, through an interactive platform for sharing knowledge (Ye *et al.,* 2022).

In this way, members of an institution with a favorable innovation climate would be more willing to disseminate their innovative ideas, promote innovative behaviors and participate in innovation programs (Jiang *et al.,* 2023). In summary, in a favorable organizational innovation climate, the behavior of sharing and disseminating knowledge is usually valued and recognized by leaders and organizations (Liu *et al.,* 2019).

Conclusions

It is concluded that the ICS is a positive tool of validity in terms of its content and its internal structure, as well as its high reliability. Despite the relevance of the innovation climate in the innovative behavior of workers and in the adaptation of companies, there are not adapted instruments in Peru that allow to evaluate it, hence study scales are used with psychometric information of the moment and context in which they were built. Therefore, as the ICS is a short and robust measure based on the social interactionism model, its application could allow companies to understand the benefits and disadvantages that the innovation climate exerts on organizations and their employees, and develop actions to promote innovation within the organization, through the areas of human resources and business management (Newman *et al.,* 2020).

As for the limitations, the sample does not belong to a single category of work, professional or service performance, and given that the sampling and institutional characteristics are influential aspects in the psychometric behavior of the items, this can be reflected in the definitive internal structure of the instrument. Similarly, because the data were collected through a questionnaire and online, through the *Google Forms* platform, some bias (*e.g.*, social desirability) could have been presented in the respondents' response.

For future studies, it is recommended to have specific occupational samples, as well as to use additional strategies to obtain other evidence of validity (*e.g.*, due to its relationship with other variables), that support the adequacy of its psychometric properties and its predictive power. On the other hand, the innovation climate has been evaluated at an individual level of analysis, i.e., considering how employees perceive the innovation climate in their organizations, so it would also be relevant to compare it with a measure of the evaluation of the climate at the organizational level to have information about the correspondence with the shared perceptions of workers. Likewise, it is necessary to develop empirical works that include related aspects such as the creative climate and the organizational culture of the institution (Newman *et al.,* 2020).

References

Afsar, B. and Umrani, W. A. (2019). Transformational leadership and innovative work behavior. *European Journal of Innovation Management*, *23*(3), 402-428. https://doi.org/10.1108/EJIM-12-2018-0257

American Educational Research Association, American Psychological Association y National Council on Measurement in Education (eds.). (2014). *Standards for educational and psychological testing*. American Educational Research Association.

Asociación Médica Mundial. (2017). *Declaración de Helsinki de la AMM - Principios éticos para las investigaciones médicas en seres humanos.* https://bit.ly/4dznuFS

Ato, M., López, J. and Benavente, A. (2013). Un sistema de clasificación de los diseños de investigación en psicología. *Anales de Psicología*, *29*(3), 1038-1059. https://doi.org/10.6018/analesps.29.3.178511

Baltes, B. B., Zhdanova, L. S. and Parker, C. P. (2009). Psychological climate: A comparison of organizational and individual level referents. *Human Relations*, *62*(5), 669-700. https://doi.org/10.1177/0018726709103454

Bovaird, J. A. and Koziol, N. A. (2012). Measurement models for ordered-categorical indicators. In R. H. Hoyle (ed.), *Handbook of structural equation modeling* (pp. 495-511). The Guilford Press.

Brimhall, K. C. (2019). Are we innovative? Increasing perceptions of nonprofit innovation through leadership, inclusion, and commitment. *Review of Public Personnel Administration, 41*(1), 3-24. https://doi.org/10.1177/0734371X19857455

Brown, T. A. (2015). *Confirmatory factor analysis for applied research* (2da ed.). The Guilford Press.

Browne, M. W. and Cudeck, R. (1993). Alternative ways of assessing model. *Sociological Methods & Research, 21*(2), 230-258. https://doi.org/10.1177/0049124192021002005

Cámara Peruana de Comercio Electrónico. (2021). *Reporte oficial de la industria Ecommerce en Perú. Impacto del COVID-19 en el comercio electrónico en Perú y perspectivas al 2021.* CAPECE.

Carmona, L. J., Gomes, G. and Costa, D. L. (2020). Elements of organizational culture that encourage innovation development. *Revista de Administração FACES Journal, 19*(1), 8-26. https://doi.org/10.21714/1984-6975FACES2020V19N1ART7427

Chan, I. and., Liu, A. M. and Fellows, R. (2014). Role of leadership in fostering an innovation climate in construction firms. *Journal of Management in Engineering, 30*(6), 06014003. https://doi.org/10.1061/(ASCE)ME.1943-5479.0000271

Colegio de Psicólogos del Perú. (2018). *Código de ética y deontología*. Colegio de Psicólogos del Perú. https://bit.ly/3YThsLB

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78*(1), 98-104. https://doi.org/10.1037/0021-9010.78.1.98

Dhar, R. L. (2015). The effects of high-performance human resource practices on service innovative behaviour. *International Journal of Hospitality, 51*, 67-75. https://doi.org/10.1016/j.ijhm.2015.09.002

Dominguez-Lara, S. (2018). Propuesta de puntos de corte para cargas factoriales: Una perspectiva de fiabilidad de constructo. *Enfermería Clínica, 28*(6), 401-402. https://doi.org/10.1016/j.enfcli.2018.06.002

Dominguez-Lara, S., Zavaleta-Abad, R. A., Del Moral-Trinidad, L. D. M. and Campos-Uscanga, Y. (2022). Nuevo análisis psicométrico de la Escala de Autorregulación de la Actividad Física en universitarios mexicanos: Estructura interna y versión breve. *Retos, 45*, 897-907. https://doi.org/10.47197/retos.v45i0.93239

Dominguez-Lara, S., Romo-González, T., Palmeros-Exsome, C., Barranca-Enríquez, A., del Moral-Trinidad, E. and Campos-Uscanga, Y. (2019). Análisis estructural de la Escala de Bienestar Psicológico de Ryff en universitarios mexicanos. *Liberabit, 25*(2), 267-285. http://doi.org/10.24265/liberabit.2019.v25n2.09

Ehrhart, M. G. and Schneider, B. (2016). Organizational climate and culture. En O. Braddick (Ed.), *Oxford research encyclopedia: Psychology*. Oxford University Press. https://doi.org/10.1093/acrefore/9780190236557.013.3

Finney, S. J. and DiStefano, C. (2006). Non-normal and categorical data in structural equation modeling. En G. R. Hancock y R. O. Mueller (eds.), *Structural equation modeling. A second course* (pp. 269-314). Information Age Publishing.

Huang, H. and Li, F. (2021). Innovation climate, knowledge management, and innovative work behaviour in small software companies. *Social Behavior and Personality: An International Journal, 49*(4), e9780. https://doig.org/10.2224/sbp.9780

Isaksen, S. G. (2023). Assessing the work environment for creativity and innovation: Building on Mathisen and Einarsen' review (2004). *Creativity Research Journal, 35*(2), 227-253. https://doi.org/10.1080/10400419.2022.2112837

Jiang, S., Wang, J., Zhang, R. and Liu, O. (2023). Innovation climate for individual motivation and innovation performance: Is innovative behavior a missing link? *Journal of Innovation & Knowledge, 8*(4), 100440. https://doi.org/10.1016/j.jik.2023.100440

Jung, D. I., Chow, C. and Wu, A. (2003). The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings. *The Leadership Quarterly, 14*(4-5), 525-544. https://doi.org/10.1016/S1048-9843(03)00050-X

Kanter, R. M. (1996). When a thousand flowers bloom: Structural, collective, and social conditions for innovation in organizations. En P. S. Myers (ed.), *Knowledge management and organizational design* (pp. 93-131). Butterworth-Heinemann. https://doi.org/10.1016/b978-0-7506-9749-1.50010-7

Khalili, A. (2016). Linking transformational leadership, creativity, innovation, and innovation-supportive climate. *Management Decision, 54*(9), 2277-2293. https://doi.org/10.1108/MD-03-2016-0196

Kodden, B. (2020). *The art of sustainable performance. A model for recruiting, selection, and profes-*

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

sional development. Springer. https://doi.org/10.1007/978-3-030-46463-9

Li, C. H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior Research Methods*, *48*(3), 936-949. https://doi.org/10.3758/s13428-015-0619-7

Liu, F., Chow, I. H-S., Zhang, J. C. and Huang, M. (2019), Organizational innovation climate and individual innovative behavior: Exploring the moderating effects of psychological ownership and psychological empowerment. *Review of Managerial Science, 13*(4), 771-789. https://doi.org/10.1007/s11846-017-0263-y

Lizarzaburu, E. (2023). *Evolución y perspectivas del e-commerce para el comercio minorista en el Perú (2022).* Universidad de Lima, Facultad de Comunicación, Carrera de Comunicación. https://bit.ly/46ZZpWf

McDonald, R. P. and Ho, M.-H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods, 7*(1), 64-82. https://doi.org10.1037/1082-989X.7.1.64

Merino-Soto, C. and Livia-Segovia, J. (2009). Intervalos de confianza asimétricos para el índice la validez de contenido: Un programa Visual Basic para la V de Aiken. *Anales de Psicología, 25*(1), 169-171. https://bit.ly/3Xh32nA

Moral-de la Rubia, J. (2019). Revisión de los criterios para validez convergente estimada a través de la Varianza Media Extraída. *Psychologia, 13*(2), 25-41. https://doi.org/10.21500/19002386.4119

Mumford, M. D., Fichtel, M., England, S. and Newbold, T. R. (2023). Leader thinking, follower thinking: Leader impacts on follower creative performance. *Annual Review of Organizational Psychology and Organizational Behavior, 10*, 413-440. https://doi.org/10.1146/annurev-orgpsych-120920-045553

Muñiz, J., Elosua, P. and Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: Segunda edición. *Psicothema, 25*(2), 151-157. https://doi.org/10.7334/psicothema2013.24

Newman, A., Round, H., Wang, S. and Mount, M. (2020). Innovative climate: A systematic review of the literature and agenda for future research. *Journal of Occupational and Organizational Psychology, 93*(1), 73-109. https://doi.org/10.1111/joop.12283

Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D. L. and Wallace, A. M. (2005). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior, 26*(4), 379-408. https://doi.org/10.1002/job.312

Penfield, R. D. and Giacobbi, J. M. (2004). Applying a score confidence interval to Aiken's item content-relevance index. *Measurement in Physical Education and Exercise Science, 8*(4), 213-225. https://doi.org/10.1207/s15327841mpee0804_3

Pichlak, M. (2016). The innovation adoption process: A multidimensional approach. *Journal of Management & Organization, 22*(4), 476-494. https://doi.org/10.1017/jmo.2015.52

Ponterotto, J. G. and Charter, R. A. (2009). Statistical extensions of Ponterotto and Ruckdeschel's (2007) reliability matrix for estimating the adequacy of internal consistency coefficients. *Perceptual and Motor Skills, 108*(3), 878-886. https://doi.org/10.2466/pms.108.3.878-886

Raykov, T. and Hancock, G. R. (2005). Examining change in maximal reliability for multiple-component measuring instruments. *British Journal of Mathematical and Statistical Psychology, 58*(1), 65-82. https://doi.org/10.1348/000711005X38753

Rodríguez, A., Reise, S. P. and Haviland, M. G. (2016). Evaluating bifactor models: Calculating and interpreting statistical indices. *Psychological Methods, 21*(2), 137-150. https://doi.org/10.1037/met0000045

Sánchez-Villena, A. R., Dominguez-Lara, S., Aranda, M., Fuentes Gutiérrez, V. and García-Domingo, M. (2021). Análisis estructural de la Escala de Dependencia y Adicción al Smartphone (EDAS) en universitarios peruanos. *Health and Addictions*, *21*(2), 93-113. https://doi.org/10.21134/haaj.v21i2.572

Sarros, J. C., Cooper, B. K. and Santora, J. C. (2008). Building a climate for innovation through transformational leadership and organizational culture. *Journal of Leadership & Organizational Studies, 15*(2), 145–158. https://doi.org/10.1177/1548051808324100

Scott, S. G. and Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580-607. https://doi.org/10.2307/256701

Shanker, R., Bhanugopan, R., van der Heijden, B. I. J. M. and Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of Vocational Behavior, 100*, 67-77. https://doi.org/10.1016/j.jvb.2017.02.004

Siegel, S. M. and Kaemmerer, W. F. (1978). Measuring the perceived support for innovation in organizations. *Journal of Applied Psychology, 63*(5), 553-562. https://doi.org/10.1037/0021-9010.63.5.553

Smits, I. A. M., Timmerman, M. E., Barelds, D. P. H. and Meijer, R. R. (2015). The Dutch Symptom Checklist-90-Revised: Is the use of the subscales justified? *European Journal of Psychological Assessment, 31*(4), 263-271. https://doi.org/10.1027/1015-5759/a000233

Suárez-Alvarez, J., Pedrosa, I., Lozano, L.M., García-Cueto, E., Cuesta, M. and Muñiz, J. (2018). Using reversed items in Likert scales: A questionable practice. *Psicothema, 30*(2), 149-158. https://doi.org/10.7334/psicothema2018.33

United Nations Conference on Trade and Development. (2021). *COVID-19 and e-commerce: A global review.* United Nations. https://bit.ly/3yRyTle

Usmanova, K., Wang, D. and Sumarliah, E. (2023). Spiritual leadership a pathway toward innovative work behavior via knowledge sharing self-efficacy: Moderating role of innovation climate. *Journal of Information and Knowledge Management Systems, 53*(6), 1250-1270. https://doi.org/10.1108/VJIKMS-04-2021-0054

West, M. A. and Sacramento, C. A. (2012). Creativity and innovation: The role of team and organizational climate. En M. D. Mumford (ed.), *Handbook of organizational creativity* (pp. 359-385). Academic Press. https://doi.org/10.1016/B978-0-12-374714-3.00015-X

Ye, P., Liu, L. and Tan, J. (2022). Creative leadership, innovate climate behaviour: The moderating role of knowledge sharing in management. *European Journal of Innovation Management, 25*(4), 1092-1114. https://doi.org/10.1108/EJIM-05-2020-0199

Annex 1

Innovation Climate Scale

Answer your agreement or disagreement with the following statements regarding your workplace, considering the scale presented below.

1	2	3	4	5
Completely at odds	At odds	Neither agree nor disagree	All right	Completely agree

In this company, creativity is promoted.	1	2	3	4	5
Bosses respect our ability to work creatively.	1	2	3	4	5
In this company, people are allowed to try to solve problems in different ways.	1	2	3	4	5
The main function of the members of this organization is to follow the directives provided by the established means.	1	2	3	4	5
In this company, you can get into a lot of trouble by doing your job differently.	1	2	3	4	5
This organization can be described as flexible because it continually adapts to change.	1	2	3	4	5
One cannot do things that are very different in this company because it causes anger.	1	2	3	4	5
The best way to get along in this organization is to think like the rest of the group.	1	2	3	4	5
In this company, all people are expected to face problems in the same way.	1	2	3	4	5
This organization is open and receptive to change.	1	2	3	4	5
The people in charge at this company are usually recognized for the ideas of others.	1	2	3	4	5
In this organization we do things as they were done in the past.	1	2	3	4	5
This company seems more interested in continuing with the current state of affairs than in change.	1	2	3	4	5
In this organization, the rewards system promotes innovation.	1	2	3	4	5
This organization publicly recognizes innovators.	1	2	3	4	5
In this company, the rewards system mainly benefits those who do not go against the rules.	1	2	3	4	5
Support to develop new ideas is available when needed.	1	2	3	4	5
Sufficient resources are allocated to innovation in this organization.	1	2	3	4	5
Sufficient time is available to develop creative ideas in this company.	1	2	3	4	5
In this organization, the lack of funds to explore creative ideas is a problem.	1	2	3	4	5
In this organization, the shortage of personnel hinders innovation.	1	2	3	4	5
During the working day I have free time to develop creative ideas.	1	2	3	4	5

october 2024-march 2025
pp. 285-301
https://doi.org/10.17163/ret.n28.2024.07

Post-recession business growth: impact on ROE in the long and short term

Crecimiento empresarial post-recesión: impacto en ROE a corto y largo plazo

Vladislav Spitsin
Professor at Universidad Politécnica Nacional Tomsk, Rusia
spicynvv@tpu.ru
https://orcid.org/0000-0002-8360-7590

Marina Ryzhkova
Professor at Universidad Politécnica Nacional Tomsk, Rusia
marybox@tpu.ru
https://orcid.org/0000-0002-0107-8016

Lubov Spitsina
Professor at Universidad Politécnica Nacional Tomsk, Rusia
spicyna@tpu.ru
https://orcid.org/0000-0002-3923-984X

Victoria Leonova
Professor la Universidad Politécnica Nacional Tomsk, Rusia
vap60@tpu.ru
https://orcid.org/0000-0002-9660-4356

Received on: 08/05/24 **Revised on:** 12/07/24 **Approved on:** 28/08/24 **Published on:** 01/10/24

Abstract: at the beginning of the current century, the world economy experienced several crisis events that negatively influenced business performance. Many businesses have experienced long periods of declining sales. This paper continues the series of scientific works on the study of restarting growth, i.e., the growth of companies after a long period of stagnation or falling sales. The paper contributes to the world literature by analyzing the impact of different types of restarting growth on firm performance (firm's return on equity – ROE). The panel data includes 7528 observations (1882 firms * 4 years). Regression models with fixed effects are used for data analysis. The study revealed a positive impact of long-term growth on ROE, but it did not confirm the impact of short-term growth on ROE. The maximum benefits accrue to young companies with long-term fast sales growth. Empirical studies provide varying results on the impact of growth on firm profitability. Our approach reconciles these contradictions and shows that sustainable long-term growth allows firms to achieve higher profitability. These results will be of interest for investors, who should focus on finding companies that can demonstrate annual sales growth for several years. It is also advisable for owners and managers to strive for long-term annual growth in firm sales.

Keywords: fast-growing firms, restarting growth, firm performance, ROE, panel data analysis.

Suggested citation: Spitsin, V., Ryzhkova, M., Spitsina, L. and Leonova, V. (2024). Post-recession business growth: impact on ROE in the long and short term. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 285-301. https://doi.org/10.17163/ret.n28.2024.07

Resumen: a principios del presente siglo, la economía mundial experimentó varios eventos de crisis que afectaron negativamente el desempeño empresarial. Muchas empresas han atravesado largos períodos de reducción de las ventas. Este artículo continúa la serie de trabajos científicos sobre el estudio del reinicio del crecimiento, es decir, el crecimiento de las empresas después de un largo período de estancamiento o caída de las ventas, y contribuye con la literatura mediante el análisis del impacto de diferentes tipos de reactivación del crecimiento en el desempeño de las empresas (rendimiento sobre el capital de la empresa-ROE). Los datos de panel incluyen 7528 observaciones (1882 empresas * 4 años). Para el análisis de datos se utilizan modelos de regresión con efectos fijos. El estudio reveló un impacto positivo del crecimiento a largo plazo sobre el ROE, pero no confirmó el impacto del crecimiento a corto plazo sobre el ROE. Los máximos beneficios los obtienen las empresas jóvenes con un rápido crecimiento de las ventas a largo plazo. Los estudios empíricos arrojan resultados variables sobre el impacto del crecimiento en la rentabilidad de las empresas. Nuestro enfoque muestra que el crecimiento sostenible a largo plazo permite a las empresas lograr una mayor rentabilidad. Estos resultados serán de interés para los inversores que deberían centrarse en encontrar empresas que puedan demostrar un crecimiento anual de las ventas durante varios años. También se recomienda que los propietarios y gerentes se esfuercen por lograr un crecimiento anual a largo plazo en las ventas de la empresa.

Palabras claves: empresas de rápido crecimiento, reactivación del crecimiento, desempeño empresarial, ROE, análisis de datos de panel.

Introduction

Many scholars focus on the study of young and fast-growing firms. This approach is justified in a growing economy, when new firms are more promising and are gradually replacing unsuccessful businesses and older companies (Boscán Carroz *et al*., 2023). However, at the beginning of the 21st century, the world economy and many countries experienced long periods of stagnation and a number of acute crisis events that negatively influenced business performance. Many businesses have experienced long periods of declining sales (Sabek and Horák, 2023); they cannot be replaced by new companies because their ability to generate new business is limited.

An urgent scientific problem arises in the study of restarting growth, i.e. the growth of companies after a long period of stagnation or falling sales. This problem is insufficiently studied in the world economic literature. According to the organizational life cycle theory, it is traditionally believed that the period of growth passes into a period of maturity, followed by decline, decreased sales and the collapse of the company (Adizes, 2004). However, there are a number of studies presuming that the companies have a chance to resume growth. These studies are fragmented and they consider only individual factors of restarting growth: entrepreneur personality (Hegarty *et al*., 2020; Saadi *et al*., 2023), technological innovation and business process improvement (Süß *et al*., 2021; Nyvall *et al*., 2023), collaborations and major projects (Ullberg, 2023), etc. Such work and growth factors are systematized in (Spitsin *et al*., 2024).

This paper continues the series of scientific works on the study of restarting growth, i.e. growth of companies after a long period of stagnation or falling sales. Four types of restarting growth of firms are identified and analyzed: moderate long-term growth (MLTG), fast long-term growth (FLTG), moderate short-term growth (MSTG), fast short-term growth (FSTG). The paper investigates the impact of these types of restarting growth on a firm's financial performance (return on equity (ROE)). Using a sample of 1,882 firms, this study models both the direct effects of different types of restarting growth on ROE and the moderation effects of the interaction of growth types with firm age.

The scientific novelty of the paper is that it develops a new and little-explored scientific area, related to the restarting growth of firms after a long period of falling sales, and assesses the impact of different types of growth on the profitability of the company. The theoretical contribution will be in the identification of patterns of the influence of restarting growth on the profitability of the company. In practical terms, these patterns will be of interest to the economies of countries that have experienced acute crisis events or long periods of stagnation or recession, as well as to the investors who are assessing the feasibility of investing in enterprises with restarting growth.

Literature review

The scope of this paper lies at the junction of two research areas. On the one hand, this is the theory of rapid growth of companies; on the other hand, this is the impact of growth on the profitability of the company. They are described in detail below.

Fast-growing companies and companies with restarting growth

Fast-growing firms have been the focus of economics for a long time (Grover Goswami *et al*., 2018; Nightingale and Coad, 2014). Scientists identify and study several types of such firms: young gazelle firms, adult scale-ups, etc. (Piaskowska *et al*., 2021). However, the phenomenon of firm growth after stagnation or falling sales (restarting growth) remains poorly studied in modern science. Economists consider cyclical development in relation to countries or local areas. However, in the case of enterprises, they use the concept of the organizational life cycle of a company's development, which traditionally assumes that the life cycle ends with company closure (Adizes, 2004). Some scientists are considering the possibility of a company, moving towards restarting growth, and highlighting certain factors that may determine such growth:

- Entrepreneur Personality (Hegarty *et al*., 2020; Saadi *et al*., 2023).
- Technological innovation and business process improvement (Süß *et al.*, 2021; Nyvall *et al*., 2023).
- Market expansion (Vertakova *et al*., 2016).
- Entrepreneurial social networks (Anis *et al.*, 2018).
- Collaborations and major projects (Forrest *et al*., 2021; Beria, 2022; Ullberg, 2023); etc.

These are fragmentary studies of individual growth factors, while a comprehensive and detailed study of the phenomenon of restarting growth is just beginning (Spitsin *et al*., 2024). The critical significance of this phenomenon is due to the cyclical nature and crisis events of the world economy, which manifested themselves at the beginning of the 21st century (global financial crisis, increased political tension, economic sanctions, Covid-19 pandemic, etc.) (Vuković *et al*., 2017; Kohler and Stockhammer, 2021).

Under these conditions, many companies experienced long periods of declining sales. The share of such companies is large (in the case of Russia, it exceeded 25% according to Spitsin *et al*., 2022), and they cannot be quickly replaced by the generation of new business. The transition of such companies to restarting growth will contribute to the economic recovery of countries and local areas and will be of interest to investors who will receive new objects for financing.

There are several myths, regarding what the characteristics of high-growth firms are (Brown *et al*., 2017). Particularly, they are: 1) young and small, 2) high-tech-oriented, 3) originated from a university, 4) based on venture capital and some other. But when trying to analyze data on fast-growing firms in developed countries, we are aware that these myths are not confirmed.

There are two pressing scientific problems: identifying growth factors and assessing the financial results of growth. This paper focuses on the second issue and assesses the impact of restarting growth on firm profitability. The study suggests that the different types of restarting growth, outlined above, may have different impacts on profitability.

There are several approaches to the fast-growing companies' identification. Mainly, researchers employ the Absolute approach (OECD, 2008), the Relative approach (Haltiwanger *et al*., 2016), and the firms' growth distribution approach (Halvarsson, 2013). We implement the first one and identify high growth as an annual sales growth with the rates that are more than 20% per annum. These criteria were modified, taking into account the economic problems in Russia, caused by political tensions and economic sanctions. Developing the criteria and growth types, proposed by (Spitsin *et al*., 2022), the study encompasses four types of post-stagnation growth:

- Fast long-term growth (FLTG): firms of this type show an annual sales growth of more than 20% annually for three or four out of four years after a stagnation period. The total sales growth for these four years is more than 60%.

- Moderate long-term growth (MLTG): annual sales of these firms grow at a rate above 10% during the same period, as in the case of FLTG; but their total sales rates for four years are in the range of 30-60%.
- Fast short-term growth (FSTG): total sales growth of such firms over four post-stagnation years should exceed 60% at an annual sales growth rate of more than 20% for no more than two of four post-stagnation years.
- Moderate short-term growth (MSTG): total sales growth for four years goes beyond 30% at an annual sales growth rate, exceeding 10% for no more than two of four post-stagnation years, and these companies were not included in the group of FSTG firms.

The types of growth are summarized in Table 1.

Table 1
Restarting growth types: Rates and periods of growth

Growth	total sales growth over four post-stagnation years	long-term post-stagnation period	short-term post-stagnation period
Fast	exceeding 60%	above 20% per year	above 20% per year
Moderate	exceeding 30%	above 10% per year	above 10% per year

For the firms that satisfy these criteria, a dependent variable (1) was assigned. Otherwise, the value was 0. This classification is critical for the methodology.

Sales growth and company profitability

Main goals of a company's development are sales growth and profitability, which are often considered alternative. The first of them is a goal, based on a management position (Piaskowska *et al.*, 2021); the second is a goal, proceeding from an economic position (Revilla and Fernandez, 2013).

- Empirical research on sales growth and profitability follows two paths:
- Econometric modeling the relationships between these variables (Federico and Capelleras, 2015).

Grouping the firms in the coordinates "sales growth - profitability" and studying the transition of firms between groups (Zhou *et al.*, 2013).

The traditional economic theory assumes that sales growth should lead to an increase in the firm's profitability. According to the economies of scale, profit growth occurs due to constant fixed costs. However, despite the often-assumed linear positive relationship between these indicators, empirical research results are surprisingly inconsistent. When some studies report this relationship as positive (Federico and Capelleras, 2015), others suggest a negative association between sales growth and profitability or do not find a statistically significant relationship between them (Jang and Park, 2011). If performance of gazelles is compared with non-gazelles' indicators, the first have significantly higher EBIT, operating income, cash flow from operation, change in net operating assets (Blomkvist and Paananen, 2017).

The impact of firms' restarting growth on profitability has not currently been studied in world economic science. It will be of great importance to assess the financial results of restarting growth for the economies of countries and local areas, as well as for investors who have invested in such firms.

This paper makes the following contributions to two research areas that were described above:

It develops the theory of rapid growth by analyzing the financial consequences of rapid growth of a firm. We can expand this theoretical direction by considering not only the phenomenon of rapid growth, but also its impact on effi-

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

ciency (firm profitability) and provide estimates for different types of rapid growth.

It offers an approach that allows scientists to reconcile the tensions between growth and firm profitability described above. This study suggests and proves that different types of growth have different effects on profitability. In addition, the profitability of a firm is affected by the age of the enterprises that demonstrate different types of rapid growth.

Development of research hypothesis

First, let us test hypotheses about the impact of different types of growth on profitability. Many scholars note that sales growth should have a positive effect on the profitability of firms. Sales growth typically leads to a more favorable cost structure due to economies of scale, which, in turn, improves firm profitability (Steffens *et al*., 2009). Many empirical studies support this assumption and document the direct correlation between sales growth and profitability (Federico and Capelleras, 2015).

However, sales growth is not always translated into higher profit margins for the following reasons:

- The change in scale leads to new challenges and requires significant organizational changes that firms' management teams may not be equipped to cope with adequately. Markman and Gartner (2002) report no significant relationship between rapid (extraordinary) growth and profitability for young firms.
- Companies try to choose the most profitable projects for expansion. However, to sustain growth, they inevitably turn to less profitable projects, which jeopardizes further gains in profitability (Davidsson *et al*., 2009).
- The growth of companies increases the strain on and complexity of their organizational structures, and reduces the ability of managers to control costs, driving profitability down (Jang and Park, 2011).

These reasons lead to the fact that in several studies, scientists may not find a significant effect of sales growth on profitability or, on the contrary, identify a negative relationship between them.

However, we believe that these reasons only apply to very rapid (extraordinary) sales growth. In this case, we should talk about the absence or negative relationship between growth and profitability. Such extraordinary growth is shown by companies with short-term restarting growth. Indeed, they should show an increase in sales for the year of about 30% or more (MSTG) or about 60% or more (FSTG). In this case, the negative factors may outweigh the benefits of growth. In the case of long-term annual growth, we expect low annual sales growth rates of about 10% (MLTG) or about 20% (FLTG). Low growth rates will allow firms to benefit from growth and will not lead to the implementation of negative factors.

Accordingly, we can formulate the following hypotheses:

Hypothesis 1.1. Long-term restarting growth will lead to increased profitability of firms.

Hypothesis 1.2. Short-term restarting growth will lead to lower profitability of firms, since this option means a sharp one-time increase in sales.

The following hypotheses concern differences in profitability of young and mature firms with restarting growth. Current studies focus on differences in development dynamics of younger and older companies (Ewerth and Girotto, 2021). The second may possess specific capital (for instance, resources, knowledge and experience) that young companies may not have. The lack of the well-established brand may also increase companies' uncertainty in challenging times. andounger firms can experience even higher expenses. These factors can negatively affect the profitability of young firms if they grow rapidly (cases of FSTG and MSTG).

On the other hand, empirical studies (Vukovic *et al*., 2023; Vithessonthi and Tongurai, 2015) confirm higher profitability of young firms. This result is largely because young firms use modern, effective technologies for organizing business and business processes, including digital technologies. This allows for significant cost savings. In line with the imprinting literature (Marquis and Tilcsik, 2013), firm's early choices, strategies, capabilities and performance are imprinted on the context at the time of the founding. As the internet has become a de facto norm fairly recently, younger firms are more likely to be "born digital", compared to their older counterparts, and they function in the digital environment effortlessly. Apart from providing obvious economic benefits, this further contributes to their perceived legitimacy, thus reducing the challenges, otherwise associated with the young age. Older firms, in contrast, may not have the inborn competence of functioning smoothly in the digital space. They find it hard, spend more, and emerge as a losing party from the digital competition (Fonseca *et al*., 2021).

Accordingly, the paper tests the following hypotheses:

Hypothesis 2.1. Long-term restarting growth will lead to increased profitability of young firms.

Hypothesis 2.2. Short-term restarting growth will lead to increased profitability of young firms.

Materials and methods

Data and variable

The initial database included more than 10,000 Russian industrial enterprises with financial indicators for 2012-2021, which was created based on SPARK data (SPARK, 2023). The Russian classification of types of economic activity generally corresponds to the Eurostat classifier NACE Rev. 2 (European Commission, 2008). The sample is represented by industrial enterprises that are reflected in sections B and C (divisions 05-33) of the European classification system. To account for sectoral differences in profitability dynamics, regression models include a corresponding variable, which is described below. Based on this database, we formed a working sample of 1,882 firms with a long period of falling sales (firms with sales, falling annually for three years in 2013-2017), which showed sales growth in 2016. The paper tested a wide range of factors and assessed their impact on the profitability of these firms for the period of 2016-2019. This panel data includes 7528 observations (1882 firms and 4 years).

The dependent variable is the firm's return on equity (ROE). This variable is calculated as the ratio of net profit to the firm's equity capital. This indicator is critical for investors as it shows the return on equity and affects the size of dividends. Such dependent variable is used in (Le and Phan, 2017).

The independent (tested) variables are dummy variables, reflecting the four groups of firms with restarting growth, which were described above (FLTG, MLTG, FSTG, MSTG). If the company belongs to this group, the variable takes the value of 1. Otherwise, it is equal to 0.

The control variables are as follows:

- Size of the enterprises (Size), defined as the natural logarithm of revenue, adjusted for the inflation index (Munjal *et al*., 2019).
- Share of fixed assets in total assets (FATA) (Anokhin *et al*., 2021).
- Leverage (Leverage), defined as debt capital, divided by total assets, multiplied by 100%, (Vithessonthi and Tongurai, 2015).
- Asset Turnover (Asset Turnover), measured as sales divided by total assets, multiplied by 100% (Liang *et al*., 2020).
- Firm's age (Age) (Vithessonthi and Tongurai, 2015).
- Average profitability by sectors and years (Sectoral average), which we use to account for differences in firm performance across business sectors and years (Vukovic *et al*., 2023).
- Sales growth (Growth), which is calculated as the difference in sales between years t and (t − 1), divided by sales in year (t − 1), multiplied by 100% (Le and Phan, 2017; Federico and Capelleras 2015).

Statistical characteristics of control and tested variables are presented in Table 2.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Table 2

Statistical characteristics of control and tested variables

N	Variables	Mean	Standard deviation	Correlation coefficients				
				1.	**2.**	**3.**	**4.**	**5.**
1	Size	19,61	1,50	1,00				
2	FATA	24,61	19,68	0,16	1,00			
3	Leverage	36,99	21,31	0,10**	-0,02	1,00		
4	Asset Turnover	166,86	108,50	-0,09**	-0,12**	0,14	1,00	
5	Age	19,75	6,36	0,08	0,14	-0,10***	-0,11***	1,00
6	Sectoral average	13,72	40,31	0,02*	-0,10***	-0,01	0,12**	-0,08**
7	Growth	7,59	32,94	0,06	-0,05***	0,09	0,09	-0,10***
8	FLTG	0,03	0,18	0,00	-0,05***	0,03	0,00	-0,07**
9	MLTG	0,08	0,28	-0,02	-0,05***	0,07	0,01	-0,07**
10	FSTG	0,11	0,31	0,03*	-0,03*	0,03	0,01	-0,10***
11	MSTG	0,14	0,34	0,03	0,03	0,05**	0,00	-0,04**

N	Variables	Correlation coefficients					
		6.	**7.**	**8.**	**9.**	**10**	**11.**
1.	Size						
2.	FATA						
3.	Leverage						
4.	Asset Turnover						
5.	Age						
6.	Sectoral average	1.					
7.	Growth	-0,04**	1.				
8.	FLTG	0,06	0,19	1.			
9.	MLTG	0,07	0,14	-0,06**	1.		
10	FSTG	0,01	0,22	-0,07**	-0,1***	1.	
11.	MSTG	0	0,05**	-0,07**	-0,12**	-0,14**	1.
*** p < .001; ** p < .01; * p < .05.							

Note. Calculated by the authors.

According to our calculations, we do not observe a strong correlation between the predictor variables, since r <0.70. In this case, all the considered variables can be used in regression models.

Models

Model 1 includes only control variables, as well as the square of the variable Growth. Models 2.1-2.4 alternately test dummy variables that reflect different types of restarting growth of firms and allow us to test hypotheses 1.1 and 1.2. Models 3.1-3.4 add the interactions of dummy variables with the variable Age of the firm (moderation effects) to models 2.1-2.4 and allow us to test hypotheses 2.1, 2.2.

Since we are analyzing panel data, the least squares model is inadequate for this task. The Hausman test was applied to select the regression model for our panel data. It favors a fixed-effects regression model, which is used in further calculations.

The general formula for a regression model with fixed effects is as follows (Baltagi, 2021):

Y_{it}= Intercept +X_{it}*β +λ_t+ε_{it} (1)

where

Intercept – constant;

X_{it} – variables and β – coefficients for variables;

λ_t – time effect;

ε_{it} – model regression residual.

Applying this general formula to our Model 1, we obtain:

ROE = Intercept + β_1*Size +β_2*FATA + β_3*Leverage + β_4*Asset Turnover + β_5*edad + β_6*Sectoral average + β_7*Growth + β_8*Growth² +λ_t + ε_{it} (2)

Based on a similar technique, let us construct formulas for Models 2.1-2.4 and 3.1-3.4.

To minimize the problems of multicollinearity, all controls variables in regression models were standardized according to Marquardt (1980). The independent dummy variables (FLTG, MLTG, FSTG, MSTG) were not standardized and took values of 0 or 1 to simplify the interpretation of the results.

Results and discussion

Regression modeling

The results of regression modeling are presented in Tables 3 and 4. In all the models, the dependent variable is ROE; standard errors are shown in parentheses.

Table 3
Regression results

Variables	Model 1	Model 2.1 (FLTG)	Model 2.2 (MLTG)	Model 2.3 (FSTG)	Model 2.4 (MSTG)
Intercept	12.31*** (0.57)	12.09*** (0.57)	11.92*** (0.57)	12.37*** (0.57)	12.28*** (0.58)
Size	(0.57)	12.09***	2,17*** (0,28)	2,12 (0,29)	2,12 (0,29)
FATA	(0.57)	11.92***	-2,68** (0,29)	-2,74 (0,29)	-2,74 (0,29)
Leverage	(0.57)	12.37***	-1,35** (0,28)	-1,27** (0,28)	-1,27** (0,28)
Asset Turnover	(0.57)	12.28***	4,82 (0,28)	4,77 (0,28)	4,77 (0,28)
Age	(0.58)	-2,67 (0,29)	-2,68** (0,29)	-2,77** (0,29)	-2,75** (0,29)
Sectoral average	4,38** (0,29)	4,29 (0,29)	4,37 (0,29)	4,4*** (0,29)	4,38** (0,29)
Growth	8,58** (0,40)	8,06** (0,4)	8,23** (0,40)	8,62** (0,4)	8,57 (0,4)
Growth2	-0,66** (0,08)	-0,62** (0,08)	-0,62** (0,08)	-0,66** (0,08)	-0,66** (0,08)
Dummy (FLTG)		10,57 (1,55)			
Dummy (MLTG)			5,49 (1,02)		
Dummy (FSTG)				-0,73 (0,93)	
Dummy (MSTG)					0,22 (0,81)

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Variables	Model 1	Model 2.1 (FLTG)	Model 2.2 (MLTG)	Model 2.3 (FSTG)	Model 2.4 (MSTG)
Adj. R2	0,185	0,191	0,189	0,185	0,185
p	<0,001	<0,001	<0,001	<0,001	<0,001
*** p < .001; ** p < .01; * p < .05.					

Note. Calculated by the authors according to SPARK data.

According to the obtained regression coefficients, we construct the following formula for Model 1:

$$ROE = 12.31 + 2.12 * \text{Size}-2.74 * \text{FATA}-1.27 * \text{Leverage} + 4.77*\text{Asset Turnover}-2.75*\text{Age} + 4.38*\text{Mean}_{ind}+8.48*\text{Growth}-0.66 * \text{Growth}^2 +\lambda_t+\varepsilon_{it} \quad (3)$$

Las fórmulas para los modelos 2.1-2.4, 3.1-3.4 se elaboran de manera similar de acuerdo con los datos de las tablas 3 y 4.

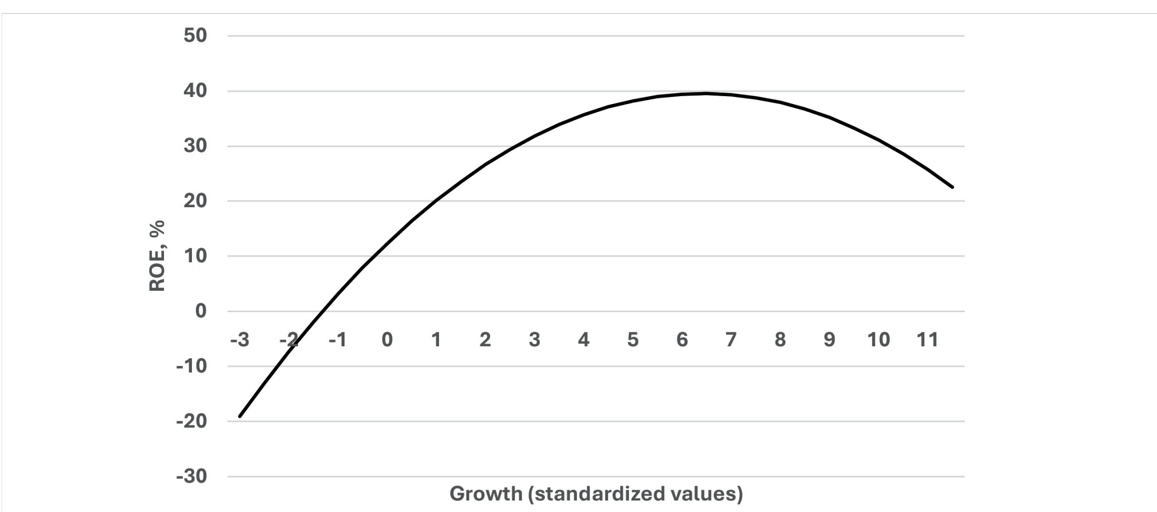
Formulae for Models 2.1-2.4, 3.1-3.4 are constructed similarly according to the data in Table 3 and Table 4.

Model 1 is significant and explains about 18% of the variation in the dependent variable. All control variables in Model 1 are highly significant, with Size, Turnover and Sectoral average, having a positive effect on ROE, and with Leverage, Age and FATA, having a negative effect. Model 1 shows the nonlinear (inverted u-shape) impact of sales growth on a firm's return on equity. The graphic visualization of this influence is presented in Fig. 1. When plotting the graph, we take into account the fact that all the variables in model 1 are standardized. We assume that all control variables take average values, but these values are zero because they are standardized, and we can exclude them from the calculations. In this case, the formula for model 1 will be as follows:

$$ROE = 12.31+8.48 * \text{Growth}-0.66 * \text{Growth}^2 \quad (4)$$

Figure 1

Nonlinear impact of sales growth on ROE



Note. Calculated by the authors.

Figure 1 shows that high sales growth rates, first, slow down ROE growth and then lead to a decrease in ROE.

Models 2.1-2.4 add dummy variables, reflecting different types of restarting growth of firms. These models give different results. A significant positive impact of long-term sales growth on ROE was revealed in models 2.1 and 2.2 for the cases of FLTG and MLTG. The coefficients for these variables in the regression model are 10.57 and 5.49, which means an additional increase in profitability for firms with these types of growth by 10.57% and 5.49%, respectively (since these variables take values of 0 and 1). Such increase in profitability will be observed annually during 4 years of the study period, which is extremely attractive for investors. In contrast, short-term sales growth does not have a significant effect on ROE. The coefficients for the variables FSTG and MSTG are not significant and are close to zero. Models 2.1-2.4 are highly significant and the share of the explained variation in the dependent variable increases to 19%.

Consequently, Models 2.1-2.4 confirmed hypothesis 1.1 about the positive impact of long-term growth on ROE, since the coefficients in models are significant and positive and do not confirm hypothesis 1.2; they did not reveal a significant effect of short-term growth on ROE.

Table 4 presents the results of the joint influence of dummy variables and the variable age on ROE. In all the models, the dependent variable is ROE; standard errors are shown in parentheses.

Table 4

Regression results with moderator age

Variables	Model 3.1 (FLTG)	Model 3.2 (MLTG)	Model 3.3 (FSTG)	Model 3.4 (MSTG)
Intercept	12,08*** (0,57)	11,92** (0,57)	12.36*** (0,57)	12.30** (0,58)
Size	2.17*** (0,28)	2.16*** (0,28)	2.12 (0,29)	2.1*** (0,29)
FATA	-2,69 (0,29)	-2,69 (0,29)	-2,74 (0,29)	-2,73** (0,29)
Leverage	-1,28** (0,28)	-1,35** (0,28)	-1,27** (0,28)	-1,28** (0,28)
Asset Turnover	4,83** (0,28)	4,81 (0,28)	4,77 (0,28)	4,77 (0,28)
Age	-2,51** (0,29)	-2,56 (0,3)	-2,74 (0,31)	-3,04** (0,31)
Sectoral average	4,33** (0,29)	4,36 (0,29)	4,4*** (0,29)	4,39 (0,29)
Growth	8,05** (0,4)	8,23** (0,40)	8,63** (0,40)	8,55** (0,40)
Growth^2	-0,63*** (0,08)	-0,62** (0,08)	-0,67** (0,08)	-0,67** (0,08)
Dummy (FLTG)	8,99** (1,64)			
Dummy (MLTG)		5,23** (1,03)		
Dummy (FSTG)			-0,81 (0,96)	
Dummy (MSTG)				0,40 (0,82)
Age * Dummy	-4,70** (1,58)	-1,29 (0,96)	-0,31 (0,91)	2,36 (0,84)
Adj. R^2	0,191	0,188	0,185	0,185
P	<0,001	<0,001	<0,001	<0,001

*** p < .001; ** p < .01; * p < .05.

Note. Calculated by the authors according to SPARK data.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Models 3.1-3.4 are significant; R2 remains at the level of 18-19%. The coefficients and significance of the control variables and the dummy variable remain virtually unchanged. The new variable (Age * Dummy) is highly significant in two cases:

- In the case of FLTG, it negatively affects profitability.
- In the case of MSTG, it has a positive effect on profitability.

To correctly interpret the results obtained, these dependencies are visualized (Fig. 2 and 3).

When plotting the graph, we take into account the fact that all variables in model 1 are standardized, except for the dependent and dummy variables. We assume that all control variables take average values, but these values are zero because they are standardized, and we can exclude them from the calculations. In this case, the formula for model 3.1 (FLTG) will be as follows:

$$ROE = 12.08\text{-}2.51 * \text{Age} + 8.99 * \text{Dummy (FLTG)} - 4.70 * \text{Age} * \text{Dummy (FLTG)} \quad (5)$$

Since the dummy variable takes the value of 0 or 1, we obtain two functions:

$$ROE = 12{,}08 - 2{,}51 * \text{Age} + 8{,}99 - 4{,}70 * \text{Age} \quad (6)$$

$$ROE = 12{,}08 - 2{,}51 * \text{Age} \quad (7)$$

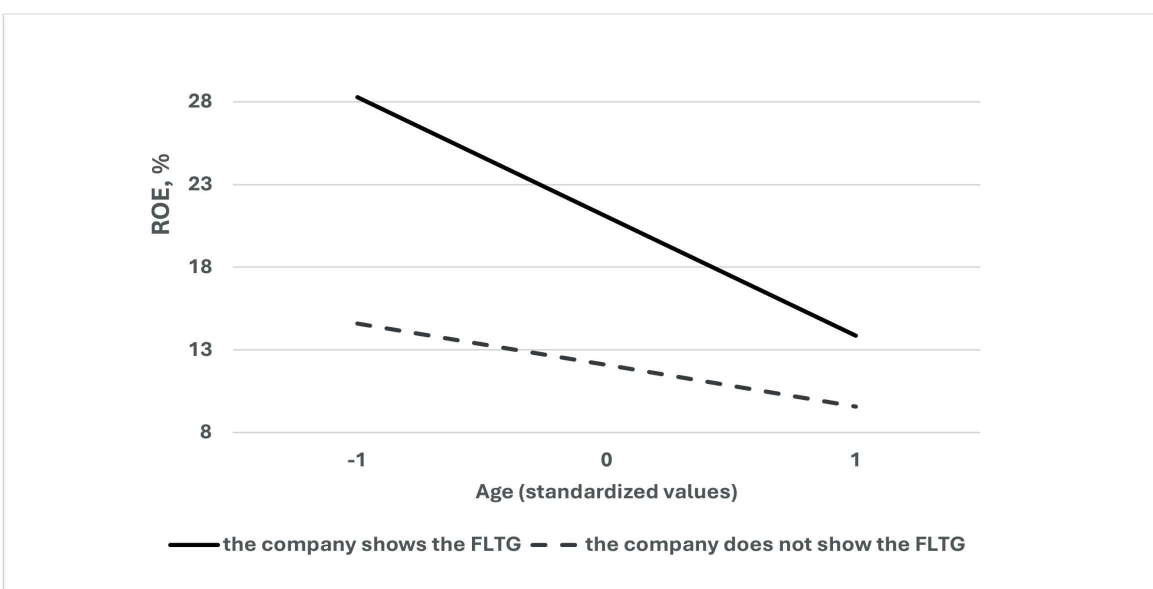
Formula 6 is for companies that have shown FLTG. The next one is for companies that did not show FLTG.

To visualize Model 3.4 (MSTG), functions are constructed in a similar manner.

Figure 2 shows the advantages of young firms. andoung firms with FLTG receive the greatest gains in ROE, compared to those without FLTG. As age increases, the advantage of firms with FLTG by ROE decreases. In the MSTG case (Figure 3), the opposite picture is observed. andoung companies without MSTG receive the greatest gains in ROE, compared to young firms with MSTG. As age increases, the advantage of firms without MSTG by ROE decreases.

Figure 2

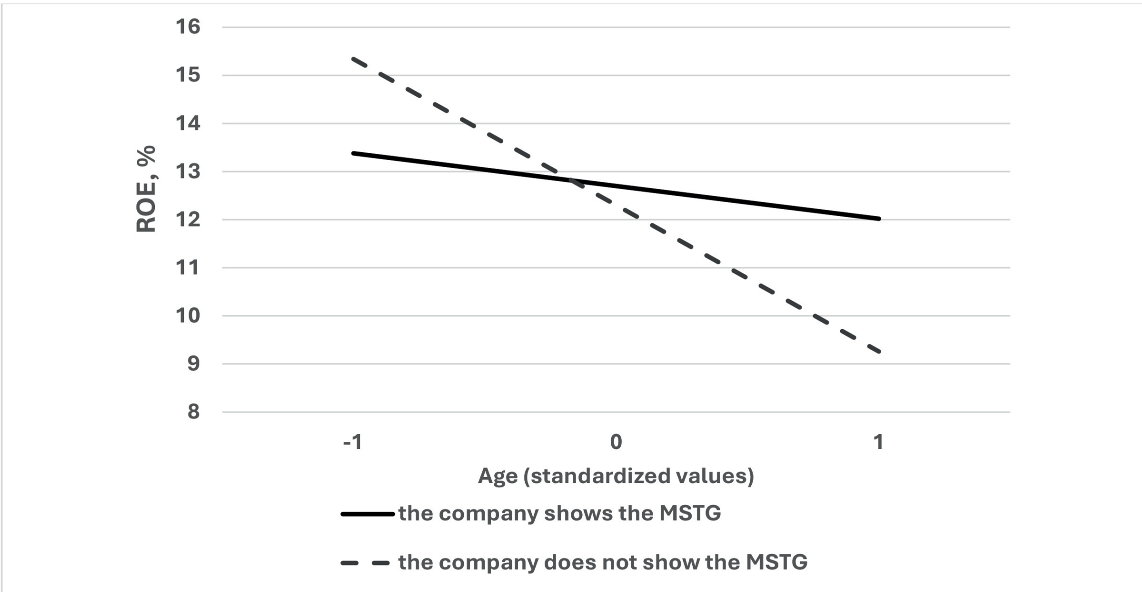
Joint influence of FLTG and firm age on ROE



Note. Calculated by the authors.

Figure 3

Joint influence of MSTG and firm age on ROE



Note. Calculated by the authors.

Consequently, hypotheses 2.1 and 2.2 are partially confirmed for cases FLTG and MSTG.

Robustness test

To check the robustness of results, the authors build additional regression models for Models 3.1-3.4 with robust correction that takes into account possible heteroscedasticity and serial (cross–sectional) correlation in the data ("arellano" method, "HC3" type), according to (Arellano, 1987). The results of the robustness test for Models 3.1-3.4 are presented in Table 5. In all the models, the dependent variable is ROE; standard errors are shown in parentheses.

Table 5

Robustness tests results

Variables	Model 3.1 (FLTG)	Model 3.2 (MLTG)	Model 3.3 (FSTG)	Model 3.4 (MSTG)
Variables	12,08*** (0,57)	11,92** (0,57)	12,36*** (0,57)	12,30** (0,58)
Intercept	2,17*** (0,31)	2,16*** (0,33)	2,12 (0,35)	2,1*** (0,34)
Size	-2,69 (0,05)	-2,69 (0,05)	-2,74 (0,07)	-2,73** (0,06)
FATA	-1,28* (0,53)	-1,35* (0,55)	-1,27* (0,53)	-1,28** (0,53)
Leverage	4,83** (0,37)	4,81 (0,37)	4,77 (0,37)	4,77 (0,37)
Asset Turnover	-2,51** (0,27)	-2,56 (0,34)	-2,74 (0,26)	-3,04** (0,27)

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Variables	Model 3.1 (FLTG)	Model 3.2 (MLTG)	Model 3.3 (FSTG)	Model 3.4 (MSTG)
Age	4,33** (0,12)	4,36 (0,14)	4,40** (0,14)	4,39 (0,14)
Sectoral average	8,05** (0,31)	8,23** (0,45)	8,63** (0,52)	8,55** (0,51)
Growth	-0,63*** (0,07)	-0,62** (0,06)	-0,67** (0,07)	-0,67** (0,07)
Growth2	8,99* (4,51)			
Dummy (FLTG)		5,23** (1,68)		
Dummy (MLTG)			-0,81 (0,61)	
Dummy (FSTG)				0,40 (0,27)
Dummy (MSTG)	-4,70* (2,02)	-1,29 (0,94)	-0,31 (0,69)	2,36 (0,41)
Age * Dummy	0,191	0,188	0,185	0,185
Adj. R^2	<0,001	<0,001	<0,001	<0,001
p				

Note. Calculated by the authors according to SPARK data.

Our calculations confirm the stability of the obtained results. Tested variables (Dummy and Age* Dummy) remain significant in robust models:

- Dummy remains significant in models 3.1 and 3.2.
- Age*Dummy remains significant in models 3.1 and 3.2.

The study performed additional estimates of the standard errors and significance of the coefficients, considering possible heteroscedasticity and serial (cross–sectional) correlation in the data. These calculations (robustness check) confirmed the results and conclusions, described in the Results section.

Theoretical contribution

The impact of growth on firm performance has been deeply studied in the world literature. Scientists have described the theoretical background and reasons that determine the positive (Federico and Capelleras, 2015) or negative impact of growth on profitability (Jang and Park, 2011). However, the impact of different types of restarting growth on a firm's return on equity is not in the focus. We attempted to solve this problem and show that different types of restarting growth might have different effects on firms' profitability. It shows that long-term fast or moderate growth leads to an increase in profitability (5-10% increase in ROE), in contrast to short-term types of growth that do not affect ROE. We believe that long-term annual sales and growth rates are not too high, which means that such growth will have a positive impact on profitability. In contrast, short-term growth often means an increase in sales of 30%, 60%, or more percent per year. With such high growth, its negative impact on profitability begins to appear, and no increase in ROE is observed. We also note that, in this case, we are talking about growth rather than about a rebound after a fall. We have demonstrated this using a comparable sample of firms (Spitsin *et al*., 2024). This work shows that firms with restarting growth not only compensated for the decline in sales during the troubled period, but also exceeded it during the growth period, i.e. achieved higher sales than those before the start of the troubled period.

Further research showed that additional benefits and greater ROE gains accrued to young firms with fast long-term growth. We believe that this result is consistent with the fact that young firms use modern, effective technologies for organizing business and business processes, including digital technologies, as shown in (Marquis and Tilcsik, 2013; Fonseca *et al*., 2021). Indeed, this feature of young firms may make them more flexible and capable of rapid sales growth without a significant increase in costs.

We can recommend the following direction for further research. This paper documents the differential impact of different types of growth on ROE when firms restart growth after a long period of declining sales. However, we can expect similar differences for traditional cases of fast-growing companies (gazelle firms, scale-up firms, etc.). This assumption is consistent with the paper (Spitsin *et al*., 2022), which proves the advantage of long-term growth over short-term growth for fast-growing companies in high-tech industries using analysis of variance. It is advisable to further test this assumption for different countries and industries, using regression modeling.

Practical implementation

The obtained results can be of interest to investors, owners and managers of firms. They show that annual long-term growth allows firms to achieve higher performance (ROE), and firms should strive for it. Firm owners and managers benefit from this type of growth, and investors should look for firms that can exhibit this type of growth.

However, investors, owners and managers of firms need to take into account the following point: the predominance of "Growth Episodes" over "Growth Firms". The empirical evidence on firm growth shows that the fluctuation within firms exceeds that between firms (Coad and Srhoj, 2019). This finding corresponds to "Growth Episodes" rather than designating entities such as "Growth Firms" (Grover Goswami *et al*., 2018). In this study, there were significantly more firms with short-term rapid or moderate growth than those with similar types of long-term growth. Finding firms with long-term fast or moderate annual sales growth (for investors) or providing firms with this type of growth (for owners and managers) is a challenging task. Some factors that increase the likelihood of long-term growth of a company (for the case of restarting growth) were identified in the work (Spitsin *et al*., 2024). However, further scientific research in this area is required.

Conclusions

This paper examined the profitability characteristics of firms with restarting growth and reconciled the tensions between growth and firm profitability.

In the world literature, many works are devoted to the analysis of fast-growing companies. Scholars analyze in detail the reasons for rapid growth and try to predict companies that can move to growth, but there is practically no assessment of financial results (profitability) for fast-growing companies.

We addressed this gap in economic research and modeled the impact of different types of growth on profitability in a sample of firms with restarting growth. We introduced four types of restarting growth: moderate (MLTG) and fast (FLTG) long-term growth, moderate (MSTG) and fast (FSTG) short-term growth. The study revealed a positive impact of long-term growth on ROE, but it did not confirm the impact of short-term growth on ROE.

Scholars have noted certain contradictions between the goals of growth and profitability and often consider them as alternative goals for business development. Empirical studies provide varying results on the impact of growth on firm profitability. Our approach reconciles these contradictions and shows that sustainable long-term growth (growth over several consecutive years) allows firms to achieve higher profitability.

This research showed that additional benefits and greater ROE gains accrued to young firms with fast long-term growth. This can be explained by the fact that the low base effect is realized in this case, or there are no accumulated significant contradictions in development as in long-established firms.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Our approach to studying the impact of different types of growth on a company's profitability was implemented for a sample of companies with restarting growth. It seems appropriate to use it to study other types of fast-growing companies (gazelle firms and scale-up firms), as well as in other cases of modeling the impact of growth on the profitability of the company. We believe that introducing different types of firm growth into models will help reconcile the tensions between growth and profitability and identify the types of growth that maximize firm profitability.

Limitations of the study. This work was carried out based on a sample of industrial enterprises in one country, which found itself in difficult economic conditions. It is necessary to verify the obtained results using the example of other countries with developed and developing economies over different time periods.

Suggestions for further research have been briefly described above. Firstly, we plan to continue research into the restarting growth of companies after a long-term decline in sales in order to identify new (additional) factors that increase the likelihood of long-term growth of a company. Secondly, we consider it promising to study the impact of different types of growth on profitability for traditional cases of fast-growing companies (gazelle firms, scale-up firms, etc.).

Financial support

Entity: Russian Science Foundation

Country: Russia
City: Moscow

Subsidized project: Changing the firm development trajectory: Investigating the drivers of entering the growth highway

Project code: 23-28-01404

References

Adizes, I. (2004). *Managing Corporate Lifecycles.* The Adizes Institute Publishing.

Anis, B. S., Lassaad, L., Mbarek, R. and Carrera-Jiménez, J. A. (2018). The role of entrepreneurial coaching in the restarting process after business failure. *Journal of enterprising culture, 26*(04), 379-399. https://doi.org/10.1142/s0218495818500140

Anokhin, S. A., Spitsin, V., Akerman, E. and Morgan, T. (2021). Technological leadership and firm performance in Russian industries during crisis. *Journal of Business Venturing Insights, 15*, e00223. https://doi.org/10.1016/j.jbvi.2021.e00223

Arellano, M. (1987). Practitioners' Corner: Computing robust standard errors for within-groups estimators. *Oxford Bulletin of Economics and Statistics, 49*(4), 431-434. Portico. https://doi.org/10.1111/j.1468-0084.1987.mp49004006.x.

Baltagi, B. H. (2021). Econometric analysis of panel data. En *Springer Texts in Business and Economics*. Springer International Publishing. https://doi.org/10.1007/978-3-030-53953-5

Beria, P. (2022). Mobility: developing countries through the lens of megaprojects, equity, sustainability, and development. *Research for Development*, 223-236. https://doi.org/10.1007/978-3-030-96538-9_16

Blomkvist, M. and Paananen, M. (2017). Corporate governance and accounting in small growing firms: a comparison of financial reporting and cost of debt across Gazelles and Non-Gazelles. En *Handbook of Research on Corporate Governance and Entrepreneurship* (pp. 333-366). Edward Elgar Publishing. https://doi.org/10.4337/9781782545569.00022

Boscán Carroz, M. C., Meleán Romero, R. A., Chávez Vera, K. J. and Calanchez Urribarri, Á. (2023). Peruvian entrepreneurship in the framework of sustainable development. Retos *Revista de Ciencias de la Administración y Economía, 13*(26), 219-231. https://doi.org/10.17163/ret.n26.2023.03

Brown, R., Mawson, S. and Mason, C. (2017). Myth-busting and entrepreneurship policy: the case of high growth firms. *Entrepreneurship & Regional Development, 29*(5-6), 414-443. https://doi.org/10.1080/08985626.2017.1291762

Coad, A. and Srhoj, S. (2019). Catching gazelles with a Lasso: Big Data Techniques for the prediction of high-growth firms. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3395527

Davidsson, P., Steffens, P. and Fitzsimmons, J. (2009). Growing profitable or growing from profits: Putting the horse in front of the cart? *Journal of Business Venturing, 24*(4), 388-406. https://doi.org/10.1016/j.jbusvent.2008.04.003

European Commission NACE Rev. 2 (2008). *Statistical classification of economic activities in the European Community*. Luxembourg: Office for Official Publications of the European Communities

Ewerth, D. and Girotto, M. (2022). Motivaciones y barreras en la utilización de estrategias de e-marketing en pymes catalanas y el encaje del consumidor: el caso de la comarca del Alt Empordà. *Revista CEA, 7*(15), e1889. https://doi.org/10.22430/24223182.1889

Federico, J. S. and Capelleras, J.-L. (2014). The heterogeneous dynamics between growth and profits: the case of young firms. *Small Business Economics, 44*(2), 231-253. https://doi.org/10.1007/s11187-014-9598-9

Fonseca, S., Guedes, M. J. and da Conceição Gonçalves, V. (2021). Profitability and size of newly established firms. *International Entrepreneurship and Management Journal, 18*(2), 957-974. https://doi.org/10.1007/s11365-020-00730-6

Forrest, J. and. L., Jallow, A.K., Wen, C., Shi, J. and Guo, H. (2021). The role government policy and supports play to stimulate economic growth. *Advances in Systems Science and Applications, 21*(4), 31-44.

Grover Goswami, A., Medvedev, D. and Olafsen, E. (2018). High-growth firms: facts, fiction, and policy options for emerging economies. Washington, DC: World Bank. https://doi.org/10.1596/978-1-4648-1368-9

Haltiwanger, J., Jarmin, R. S. and Kulick, R. B. (2016). High growth young firms: contribution to job, output and productivity growth. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2866566

Halvarsson, D. (2013). Identifying high-growth firms. *Working Paper*, (215). https://bit.ly/3MH38PX

Hegarty, C., Gallagher, P., Cunningham, I. and Stephens, S. (2020). ReSTART. *Advances in Business Strategy and Competitive Advantage*, 253-270. https://doi.org/10.4018/978-1-7998-2714-6.ch016

Jang, S. S. and Park, K. (2011). Inter-relationship between firm growth and profitability. International *Journal of Hospitality Management, 30*(4), 1027-1035. https://doi.org/10.1016/j.ijhm.2011.03.009

Kohler, K. and Stockhammer, E. (2021). Growing differently? Financial cycles, austerity, and competitiveness in growth models since the Global Financial Crisis. *Review of International Political Economy, 29*(4), 1314-1341. https://doi.org/10.1080/09692290.2021.1899035.

Le, T.P.V. and Phan, T.B.N. (2017). Capital structure and firm performance: empirical evidence from a small transition country. *Research in International Business and Finance, 42*, 710-726. https://doi.org/10.1016/j.ribaf.2017.07.012

Liang, D., Tsai, C. F., Lu, H. and. R. and Chang, L. S. (2020). Combining corporate governance indicators with stacking ensembles for financial distress prediction. *Journal of Business Research, 120*, 137-146. https://doi.org/10.1016/j.jbusres.2020.07.052

Markman, G. D. and Gartner, W. B. (2002). Is extraordinary growth profitable? A study of Inc. 500 high–growth companies. *Entrepreneurship theory and practice, 27*(1), 65-75. https://doi.org/10.1111/1540-8520.271004

Marquardt, D.W. (1980). A critique of some ridge regression methods: comment. *Journal of the American Statistical Association, 75*(369), 87-91. https://doi.org/10.2307/2287388

Marquis, C. and Tilcsik, A. (2013). Imprinting: Toward a multilevel theory. Academy of Management Annals, 7(1), 195-245. https://doi.org/10.5465/19416520.2013.766076

Munjal, S., Requejo, I. and Kundu, S. K. (2019). Offshore outsourcing and firm performance: Moderating effects of size, growth and slack resources. *Journal of Business Research, 103*, 484-494. https://doi.org/10.1016/j.jbusres.2018.01.014

Nightingale, P. and Coad, A. (2013). Muppets and gazelles: political and methodological biases in entrepreneurship research. *Industrial and Corporate Change, 23*(1), 113–143. https://doi.org/10.1093/icc/dtt057

Nyvall, M., Zobel, T. and Mark-Herbert, C. (2022). Use-oriented business model. *Corporate Social Responsibility and Environmental Management, 30*(3), 1314-1324. Portico. https://doi.org/10.1002/csr.2421

Organization for Economic Co-operation and Development (OECD) (2008). Eurostat-OECD Manual on Business Demography Eurostat Electronic report. https://bit.ly/4dNmHkK

Piaskowska, D., Tippmann, E. and Monaghan, S. (2021). Scale-up modes: Profiling activity configurations in scaling strategies. *Long Range Planning, 54*(6), 102101. https://doi.org/10.1016/j.lrp.2021.102101

Revilla, A. J. and Fernández, Z. (2013). The dynamics of company profits: A latent growth model. *Strategic Organization, 11*(2), 180-204. https://doi.org/10.1177/1476127012471339

Saadi, A., Beye, A. and Liouaeddine, M. (2023). Determining factors of informal enterprise closure by gender: a microeconometric study applied in Senegal. *Retos Revista de Ciencias de la Administración y Economía, 13*(26), 285-301. https://doi.org/10.17163/ret.n26.2023.07

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Sabek, A. and Horák, J. (2023). Gaussian process regression´s hyperparameters optimization to predict financial distress. *Retos Revista de Ciencias de la Administración y Economía, 13*(26), 267-283. https://doi.org/10.17163/ret.n26.2023.06

Spitsin, V., Vukovic, D., Mikhalchuk, A., Spitsina, L. and Novoseltseva, D. (2022). High-tech gazelle firms at various stages of evolution: performance and distinctive features. *Journal of Economic Studies, 50*(4), 674-695. https://doi.org/10.1108/jes-12-2021-0644

Spitsin, V., Vuković, D.B., Ryzhkova, M. and Leonova, V. (2024). Pathways to Prosperity: Navigating Post-Stagnation Growth and Revitalizing Business. Economies, 12(3):55. https://doi.org/10.3390/economies12030055

Steffens, P., Davidsson, P. and Fitzsimmons, J. (2009). Performance configurations over time: implications for growth– and profit–oriented strategies. *Entrepreneurship Theory and Practice, 33*(1), 125–148. https://doi.org/10.1111/j.1540-6520.2008.00283.x

Süß, A., Höse, K. and Götze, U. (2021). Sustainability-oriented business model evaluation –a literature review. *Sustainability, 13*(19), 10908. https://doi.org/10.3390/su131910908

Ullberg, S. B. (2023). Water works: megaprojects and timescaling in Peru. *Ethnos,* 1-21. https://doi.org/10.1080/00141844.2023.2240540

Vertakova, Y. V., Rudakova, O. V., Shadrina, V. V., Kobersy, I. S. and Belova, I. N. (2016). Strategy of disruptive innovation in emerging regional markets: Factors of success and failure. *International Journal of Economics and Financial Issues, 6*(8), 274-279.

Vithessonthi, C. and Tongurai, J. (2015). The effect of leverage on performance: Domestically-oriented versus internationally-oriented firms. *Research in International Business and Finance, 34,* 265-280. https://doi.org/10.1016/j.ribaf.2015.02.016

Vukovic, D. B., Spitsina, L., Gribanova, E., Spitsin, V. and Lyzin, I. (2023). Predicting the Performance of Retail Market Firms: Regression and Machine Learning Methods. *Mathematics, 11*(8), 1916. https://doi.org/10.3390/math11081916

Zhou, N., Park, S. H. and Ungson, G. R. (2013). Profitable growth: Avoiding the 'growth fetish' in emerging markets. *Business Horizons, 56*(4), 473–481. https://doi.org/10.1016/j.bushor.2013.03.008

Retos
Revista de Ciencias de Administración y Economía

october 2024-march 2025
pp. 303-314
https://doi.org/10.17163/ret.n28.2024.08

Gender differences in work values. A study in the Colombian labor force

Diferencias de género en los valores laborales. Un estudio en la fuerza de trabajo colombiana

Carolina Monsalve-Castro
Professor at Universidad Autónoma de Bucaramanga, Colombia
lmonsalve628@unab.edu.co
https://orcid.org/0000-0002-1572-8876

Eddy Johanna Fajardo-Ortiz
Professor at Universidad Autónoma de Bucaramanga, Colombia
efajardo@unab.edu.co
https://orcid.org/0000-0002-4635-8003

Reynier Israel Ramírez-Molina
Professor at Universidad de la Costa, Colombia
rramirez13@cuc.edu.co
https://orcid.org/0000-0002-5073-5158

Received on: 06/03/24 **Revised on:** 29/04/24 **Approved on:** 27/08/24 **Published on:** 01/10/24

Abstract: changes in business dynamics require closer attention to the interests and motivations of the human talent to captivate and retain individuals to meet their personal expectations and organizational goals. This study aims to examine whether gender presents an orientation towards extrinsic, intrinsic, social, and prestige work values of individuals in the workplace. Quantitative cross-sectional research was conducted, and the data was collected through a questionnaire. The Kaiser-Meyer-Olkin factor analysis and sample adequacy analysis were used to analyze the correlations between variables and evaluate the fit of the data, as well as the hypothesis test that provides the difference of means for comparison. The study involved 535 individuals, who were classified into 331 women and 204 men located in Colombia. The results showed that there is a greater orientation of women towards extrinsic work values, aspects such as salary and job security are essential when looking for a job or staying for a long time in an organization, with no differences between men and women to intrinsic, social and prestige values.

Keywords: work values, gender, human talent, workers, human resource management.

Resumen: los cambios en las dinámicas empresariales requieren atender con mayor detalle los intereses y motivaciones del talento humano con el fin de cautivar, retener y fidelizar a los individuos para que cumplan sus expectativas personales y objetivos de la organización. El propósito de este estudio es examinar si el género presenta una orientación hacia los valores laborales extrínsecos, intrínsecos, sociales y de prestigio de los individuos en su lugar de trabajo. Se realiza una investigación cuantitativa de corte transeccional, la recolección de información se llevó a cabo a través de un cuestionario. Se aplica el análisis factorial y adecuación muestral de Kaiser-Meyer-Olkin para analizar las correlaciones entre variables y evaluar el ajuste de los datos, así como la prueba de hipótesis que proporciona la diferencia de medias para realizar comparaciones. En el estudio participaron 535 individuos clasificados en 331 mujeres y 204 hombres ubicados en Colombia. Los resultados mostraron que existe una mayor orientación de las mujeres hacia los valores laborales extrínsecos, aspectos como el salario y seguridad laboral son esenciales a la hora de buscar un empleo o permanecer durante mucho tiempo en una organización, con nulas diferencias entre hombres y mujeres frente a los valores intrínsecos, sociales y de prestigio.

palabras claves: valores laborales, género, talento humano, trabajadores, gestión de recursos humanos.

Suggested citation: Monsalve-Castro, C., Fajardo-Ortiz, E. J. and Ramírez-Molina, R. I. (2024). Gender differences in work values. A study in the Colombian labor force. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 303-314. https://doi.org/10.17163/ret.n28.2024.08

Introduction

There are several challenges to be faced by managers in the area of human talent. Diversity driven by demographic changes, the entry and exit of talent in organizations as a result of globalization have promoted the analysis of the expectations and interests of people about employment and suggest promoting the participation of relationships with employees as a strategy to attract and retain the best assets (Cachón-Rodríguez *et al*., 2022).

In order to deepen the knowledge of the workforce, research in human resources management has been oriented towards the study of labor values, which represent the priorities of the individuals to be achieved through their work (Dahiya and Raghuvanshi, 2023) or are defined as the internal rules of the collaborator that serve to evaluate factors (Li *et al*., 2022; Ren *et al*., 2020) offered by the employer such as organizational support, job compensations, flexibility and autonomy in the activities to be performed (Drewery *et al*., 2023).

Some studies indicate that knowing the preferences that an individual has to select a company or decide to remain linked, facilitates adjusting policies and practices of human management (Mohammadi *et al*., 2023), as well as managing labor diversity in terms of generation and inclusion (Bosch and Hernández, 2020; Chillakuri, 2020), controlling rotation, in addition to favoring motivation and leadership (Ramírez *et al*., 2022).

In addition to the above, several authors have decided to include the gender variable in the analysis of labor values based on the alleged existence of discrepancies in the labor field between men and women that could guide their behaviors and impact on the results of their position and, therefore, of the company (Cemalcilar *et al*., 2019; Trzebiatowski and Triana, 2020). Studies have validated this position, highlighting that there are differences, where women express greater favoritism for social and intrinsic values such as labor flexibility and pleasant work environments. Meanwhile, men are oriented towards values related to power, higher wage expectations and jobs with greater autonomy and/or prestige (Krahn and Galambo 2014; Silva and Carvalho, 2021).

Other research indicates that job preferences between men and women are statistically weak to assume that they are different when it comes to adopting roles in companies and working as a team (Gilbert *et al*., 2010). Proof of this is the study conducted by Bacher *et al*. (2022) where they identified little effort to support gender differences with respect to extrinsic values, but they found greater differences in intrinsic values when people reached an older age or reported not having a partner. These assumptions open the door to analyze whether or not there is a gender orientation towards work values, fundamentally when changes in preferences and expectations occur in individuals that lead to it being more difficult for organizations to propose successful recruitment and retention strategies (Waterwall *et al*., 2023).

In Latin America there are few studies that examine labor values and in general, the behaviors of employees in the framework of human resources management. In a bibliometric analysis carried out by Pedraja-Rejas *et al*. (2022), the authors pointed out that the Ibero-American production on human resources management issues in prestigious journals was still marginal, being a challenge for those who wanted to expand management knowledge in this area. In addition to the above, the literature review carried out for this research reflected that some studies on gender in this context were related to employment and digital divide (Galperin and Arcidiacono, 2021), family business (Vazquez *et al*., 2024), female leadership (Baselga-Pascual and Vahamaa, 2021) and entrepreneurship ecosystems (Villegas-Mateos, 2022), indicating that there is a knowledge gap where this research is considered novel.

Hence, this research aims to investigate whether gender has an orientation towards labor values taking individuals of working age from Colombia, considered one of the most populous Spanish-speaking countries in Latin America (Zwerg-Villegas *et al*., 2022) with a heterogeneous labor market that presents levels of inequality in terms of income and gender (García *et al*., 2023; Fajardo *et al*. 2018).

The implementation of this research falls into two purposes, from the theoretical point of view this study seeks to contribute to a field of scientific

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

literature unexplored in Latin America that encourages other scholars to address human resources management issues in relation to the differences that may exist in the behaviors of men and women in the work environment. Secondly, the contribution is made in order to favor business practice due to the "war for talent" that is being presented between organizations that seek to work with the best (Stiglbaue *et al*., 2022). The findings presented in this article constitute guiding elements for human management managers to redesign their personnel policies aligned with the work values of their employees, taking gender as a differentiator. In addition, facilitate the construction of an advantage based on a favorable business image that meets both the expectations of the organization in terms of performance and as a means for employees to achieve their personal goals.

The structure of this article begins with the theoretical foundation that contributes to the development of the study and the hypothesis approach. Subsequently, the methodology used is explained, which includes the participants, the instrument and the applied statistical analysis technique. Finally, the results discussed with other authors that guide the conclusions are offered, as well as the limitations and future lines of research.

Theoretical foundation

Labor Values

Understanding the behaviors of employees in companies is a key practice that facilitates identifying work values. Prioritizing people's expectations of their work environment and what they perceive as valuable in creating a desirable work experience (Drewery *et al*., 2023) can be an input to design human resource strategies, as well as an important predictor of outcomes such as engagement (Dahiya and Raghuvanshi, 2023) and labor turnover (Li *et al*., 2022).

The first contributions in this topic relate to work values with aspects of work that motivate the human being, where the individual with his/her attitudes and opinions evaluates the work environment (Pennings, 1970) and, in addition, has beliefs about employment (Elizur, 1984) that are linked to the rewards expected for the performance (Dose, 1997). Subsequently, other contributions to the concept highlight that there are preferences based on generalized opinions that relate to attributes and results that the worker wants from his/her employment (Dajani, 2018) and that do not correspond to a specific profession but are part of a culture and basic human values (Bacher *et al*., 2022).

Common classifications of labor values include intrinsic values defined as the intangible rewards that are generated when performing a job, such as the opportunity for growth or the possibility of carrying out an interesting activity (Cemalcilar *et al*., 2019); and extrinsic values, which are classified as external rewards associated with performance such as comfort and money (Godlewska-Werner *et al*., 2020; Twenge, 2010). Other categories have been added to this classification such as prestige values related to labor aspects that grant power and contribute to obtaining the respect of employees through positions of authority and influence (Ng *et al*., 2018); and, the corresponding social or affective values with interpersonal relationships, social roles within the company and contribution from a position to society (Rani and Samuel, 2016).

On the other hand, professional development theory highlights that labor values rooted in adolescence reflect general human values and tend to remain stable in adulthood, although they can vary according to the cultural, social and economic context (Cemalcilar *et al*., 2019; Silva and Carvalho, 2021). This understanding suggests that professional decisions are influenced by the search for work roles that resonate with these ingrained values, prioritizing those that align with individual preferences and meet both work and personal expectations (Baranik *et al*., 2022; Choi, 2017). This theoretical framework, supported by diverse research, offers a valuable perspective to understand how people navigate and make decisions on their professional trajectories in the contemporary world.

Gender and its relationship to labor values

Gender research has been the subject of increasing study in the area of human resources. Some authors have examined this variable in order to provide further explanations on how work values affect the preferences and expectations of employees towards their work environment (Godlewska-Werner *et al*., 2020).

The interest in conducting research taking gender as a variable of analysis is based on some studies that suggest that the roles assumed by both men and women are built from socialization processes that occur during the childhood of an individual (Sharabi, 2014), experiencing life differently, which means a variation in their behaviors and behaviors (Huang *et al*., 2021). This could also be due to the incorporation of stereotyped qualities that originate when the individual selects situations, roles or occupations that allow him to show the characteristics associated with the gender he/she represents (Netchaeva *et al*., 2022).

These arguments are supported in social theory, which points out that individuals develop different beliefs associated with gender that allow them to form a personality as a result of social pressure and in order to fulfill specific functions within society (Masuda *et al*., 2023). This means that the roles played by both men and women could influence the expectations or meanings they create in relation to what their employment should be or the rewards that could be obtained from it (Maseda *et al*., 2023).

Some studies have revealed the presence of differences in work values based on gender. Konrad *et al*. (2000) pioneered a meta-analysis in which they examined 242 samples that showed that men and boys had preferences for values such as promotion, power and autonomy, while women and girls preferred to develop interpersonal relationships, help others and have a positive work environment. Something similar was found by Warr (2008), who identified that men attached more importance to responsibility and opportunities for promotion, achievement and initiative, and women were inclined to have pleasant companions, the opportunity to meet people and a work schedule that suited their needs.

Meanwhile, Sharabi (2014) conducted a study in Israel showing that, unlike men, women are oriented towards values such as flexibility in schedules and the adjustment between work and skills. It also found that, in relation to aspects related to remuneration and job security, women had the same preference as men.

In more recent research, Waterwall *et al*. (2023) sought to test the orientation of women towards intrinsic values and of men towards extrinsic values. The results showed, unlike the authors, that women gave more importance to both types of values in the work than men. In the same year, Lassleben and Hofmann (2023) concluded that there are differences in the work values of men and women, i.e., they found that women were more inclined towards intrinsic values than men. Meanwhile, they could not confirm that the male gender had greater preference in extrinsic values. These findings are similar to those examined by Godlewska-Werner *et al*. (2020), who noted that, compared to men, women prefer social relationships and support to safety and showed no differences in extrinsic values associated with comfort and money.

As observed, the results obtained reveal that there are gender differences in the labor values presented by individuals. This could be the result of the presence of social structures that orient men and women towards certain values that symbolize aspirations, expectations and life experiences (Maseda *et al*., 2023); as well as changes that have suffered gender roles where occupations would no longer be related to traditional stereotypes marked by society (Netchaeva *et al*., 2022). Based on the assumption that there is a gender orientation towards labor values, the following hypotheses are proposed:

H_0: gender does not have an orientation towards labor values (extrinsic, intrinsic, social, prestige).

H_1: Gender has an orientation towards labor values (extrinsic, intrinsic, social, prestige).

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Methodology

Participants

The total number of participants for this research was 535 individuals of working age from Colombia. People were classified according to their age, the ranges used were as follows: 176 born between 1965-1979; 186 born between 1980-1994 and 174 born between 1995-2012. The total number of men was 204 and of women 331. Regarding the educational level, the sample comprised 135 bachelors, 62 technicians and technologists, 94 professionals and 244 postgraduate students, currently, 400 people have jobs and 135 do not work (see table 1).

Table 1

Demographic characteristics of individuals

Demographic characteristics	Number (%)
Year range based on birth	
1965-1979	175 (33 %)
1980-1994	186 (35 %)
1995-2004	174 (32 %)
Currently working	
Yes	400 (75 %)
No	135 (25 %)
Educational Level	
Bachelor	135 (25 %)
Technician and technologist	62 (12 %)
Professional	94 (18 %)
Graduate	244 (45 %)
Gender	
Female	331 (62 %)
Male	204 (38 %)

Measures

Gender was coded for this research with female = 1 and male = 0. On the other hand, labor values were measured through the Lyons scale (2003) which is composed of 4 dimensions related to intrinsic values 8 items (eg. Work on tasks and projects that challenge your skills), extrinsic values 9 items (e.g. having access to the information you need to do your job), social values 4 items (e.g. working in a lively and fun environment) and prestige values 4 items (e.g. doing work that makes a significant impact on the organization). Response options were given from the Likert scale from 5 (absolutely essential) to 1 (unimportant). The reliability of the instrument, calculated by Cronbach's Alpha coefficient, was 0.89. In this case, reliability is considered to be good, which allows us to conclude that the instrument's items adequately measure the construct they represent and present a high correlation with each other.

Procedure

Factor analysis (FA) aims to detect if there are unobserved (latent) variables that explain why the variables are correlated with each other and can be grouped in a data reduction process, i.e., if a set of visible variables has a strong correlation between them, but at the same time the correlation with another set of variables is low, it is clear to reason that each set may explain an implicit factor causing that characteristic behavior. The FA consists of four stages: estimating an ideal matrix to enunciate the joint variability of all variables, calculating the optimal number of factors, rotating the solution to provide a simpler understanding and estimating the scores of individuals in the new dimensions (Hair *et al*., 2019).

Kaiser-Meyer-Olkin (KMO) sampling adequacy is used as a criterion to assess how well the data are suitable for FA. In addition, Chi-square quality indices, the comparative adjustment index (CFI) with an adjustment criterion, the non-normalized adjustment index (NNFI) with an adjustment criterion, the standardized residual mean square root (SRMR.) with an adjustment criterion, and the square root of the approximation error mean (RMSEA) with an adjustment criterion are used. The hypothesis test for the difference of means is also used in order to compare groups, specifically gender with each of the labor values (extrinsic, intrinsic, social, prestige).

Results

The value of KMO was estimated before the factorial analysis, and its overall measure was 0.91. The KMO measure was also evaluated in each item, which allowed to verify that all can be used in the ACF because they presented a value greater than 0.77. In addition, the Bartlett sphericity test gives a p-value < 0.001. These results indicate that the database used is appropriate for the AFC. For factor analysis, the 25 survey items were introduced. The results indicate that four factors have an eigenvalue greater than 1 and these explain 46.7% of the total variance (see table 2).

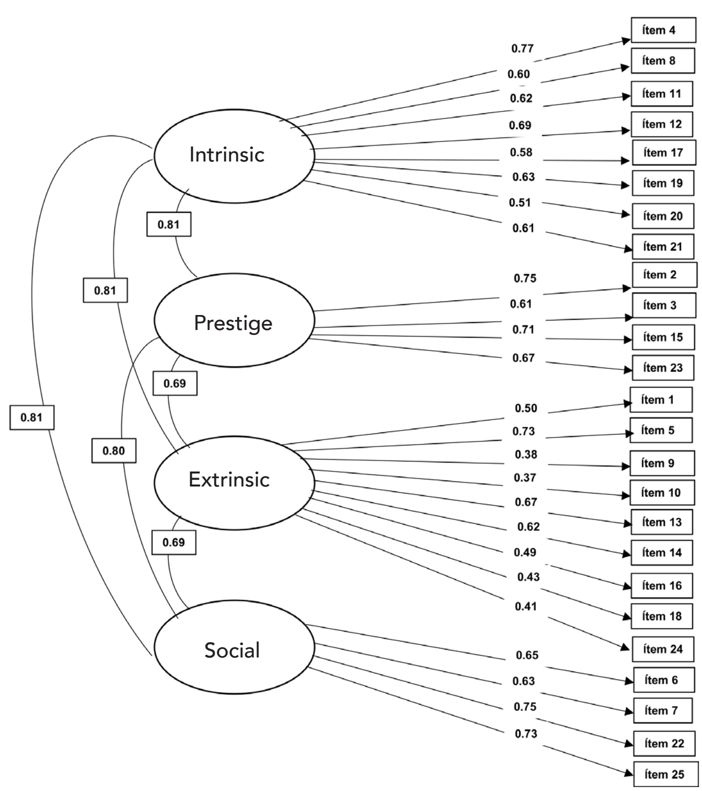
Table 2

Labor values own values for AFC

	Factor 1	Factor 2	Factor 3	Factor 4
Eigenvalue	4,918	2,575	2,233	1,950
Variance Proportion	0,197	0,103	0,089	0,078
Cumulative variance	0,197	0,300	0,389	0,467

Figure 1

Factor loads confirming factors for labor values



Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

La figura 1 presenta inicialmente que los valores laborales intrínsecos, prestigio, extrínsecos y sociales presentan altas correlaciones entre ellos. También se observa que todos los ítems que conforman los valores laborales de prestigio y valores laborales sociales tienen cargas factoriales altas. Figure 1 initially shows that intrinsic labor values, prestige, extrinsic and social values present high correlations between them. It is also observed that all the items that make up the prestige labor values and social labor values have high factor loads. As for the factor loads of most items of the other labor values are also good. The Chi-square value (χ^2=825.42, *n*=535, *p-valor*=0,0000) was determined to be significant.

The goodness-of-fit measures are shown in Table 3, with a mean square approximation error (RMSEA) value of 0.099 and residual square mean root (SRMR.) value of 0.096, representing an acceptable range for good fit. The comparative adjustment index (CFI) is equal to 0.934 and the non-normalized adjustment index (NNFI) is equal to 0.927, the adjustment being found to be adequate. Overall, it can be concluded that the adjustment is good for the four factors represented by intrinsic labor values, prestige, extrinsic and social

Table 3

Factor analysis adjustment measures

Index	Value found
RMSEA	0,099
IFC	0,934
NNFI	0,927
SRMR	0,096

The test of hypothesis of difference between means at a level of significance of 5%, highlights that there is a difference between the orientation of the value of extrinsic work between men and women, noting that the female gender is the one who has a greater disposition in their working life towards obtaining benefits that meet their needs as a person, receive timely and constructive feedback on their performance, have job security, have a schedule that is compatible with their personal life, work in an environment that favors the balance between their interests and those of the organization, have access to information to perform their work, receive recognition for a job well done and work under the supervision of someone considered and who offers support.

Table 4

Proof of the difference in means between labor values and gender of the worker

Labor Values	Test Statistic	p-value
Extrinsic	2,19870	0,02846
Intrinsic	1,59610	0,11130
Social	0,85495	0,39310
Prestige	1,10000	0,27200

Note. Significance level is 0.05.

Regarding intrinsic, social and prestige labor values, it was found that there is no difference between men and women. Therefore, there is no orientation towards these three work values and gender, which allows us to conclude that carrying out activities that challenge their skills, working in a lively and fun environment, and performing tasks with a significant impact on the organization is important for both women and men. In sum, these findings offered by the data analysis allowed to reject the null hypothesis proposed for this research, which means that the alternative hypothesis that proves that the female gender has an orientation towards extrinsic labor values is accepted.

Discussion of results

The results of this study suggest that there is a gender orientation towards work values. This makes sense from the social theory, which mentions that men and women adopt different values that are subject to the roles they play in society and the socialization experiences to which they have been subjected during their development (Eagly *et al*., 2020). In other words, this could indicate that both men and women have different interests towards their workplace that vary according to the situations, cultures and roles that are created to respond to the socioeconomic demands of the context where they grow professionally (Eagly and Wood, 2012; Ng *et al*., 2022).

The findings allowed to determine that there is an orientation of the female gender towards extrinsic labor values. An interesting contribution of this research is that women were the ones who presented the most orientation by aspects that are related to obtaining a high salary and benefits that meet their personal needs based on job security, performance, balance in their life, access to information, among others. This result is considered novel because it differs from previous research where men valued extrinsic characteristics more due to their competitive personality, greater propensity to risk, in addition to granting more value to money and power (Karriker *et al*., 2021; Krahn and Galambo 2014; Masuda *et al*., 2023). Whereas, in a traditional way, women have been more oriented towards intrinsic values due to the lack of opportunities to ascend or occupy positions with authority (Baranik *et al*., 2022), seeking to eliminate the barriers that hinder their advancement in the company through alternatives of growth and progress (Maseda *et al*., 2023).

Likewise, when analyzing the reason for this variation in the results compared to the findings presented by other authors, it could be considered that women have modified the way of conceiving work since they have had to face different milestones in their personal and work lives, as well as witness a movement that proclaims greater equality in the occupations derived from the transformation in employment and education (Eagly *et al*., 2020). Another aspect could be the force being taken by initiatives to reduce the gender pay gap in order to eradicate the glass ceiling and give way to a gender-equal employment position (Cárdenas-Angarita *et al*., 2020; Huang *et al*., 2021).

On the other hand, the findings of this study did not allow to verify the orientation of gender towards intrinsic, social and prestige labor values. These results are probably due to the fact that gender roles have changed, i.e., occupations no longer bear a relationship with male or female stereotypes due to the flexibility that has emerged in individuals to adapt to more diverse work environments (Eagly and Wood, 2012).

This could suggest that both genders value equally organizational environments where they can grow, have freedom to distribute their time and develop their skills (Bacher *et al*., 2022). Similarly, although women have been singled out as more likely to value good teamwork and social networking (Lassleben and Hofmann, 2023), men may also be orienting their values toward organizations that offer a fun work environment where they can put their skills into practice. With respect to prestige values, men are related with a greater propensity for the search for status and promotion in the hierarchy of the organization (Ng *et al*., 2022), however, the role of women over time has varied to give them access to occupations with cognitive demands and work prestige (Netchaeva *et al*., 2022). This could be a consequence of increased opportunities in the labor market, as well as changes in values and attitudes that accompany new roles played in society.

These results suggest that there is in some cases a gender orientation towards work values, as well as changes that have characterized men and women for years, especially in intrinsic and extrinsic values. However, these findings should be interpreted with caution since individuals develop an orientation towards certain values from cultural experiences, economic conditions, technological advances, among other variables that

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

may affect their preferences towards the work environment.

Conclusions

The labor values have been examined from the academic and business field with the intention of comprehending in depth the behaviors and preferences of the workers towards an organization. From this perspective, this research delves into the orientation that gender can present towards work values in a specific work context. The results obtained are a contribution to Latin American literature that aims to encourage research on human resources issues, but also strengthen the progress offered in the academic world by other authors so far. Although it is considered incipient the publication of new knowledge from this region, there are efforts to contribute to the contextualization of concepts and theories that can strengthen the business.

On the other hand, finding the orientation of the female gender towards extrinsic labor values and not checking differences in the orientation towards intrinsic, social and prestige values, offers a guide on how gender roles have changed in Latin American countries. This means that efforts to equalize working conditions between men and women are possibly impacting values and attitudes towards jobs and organizations, leaving behind traditional stereotypes.

In this way, the results of this study allow us to provide several conclusions. It is considered that the contribution in the academy can be oriented towards the method used to carry out the research. In other words, both the instrument and the statistical technique implemented proved to be reliable in determining whether or not there was a gender orientation towards labor values. This implies that other authors can rely on this work to carry out their studies and to carry out future comparisons that allow to outline the preferences of workers in the Latin American context. On the other hand, the business sector will be able to take these results as input to adjust or design personnel policies that align with the expectations and interests of employees, taking gender as a variable that provides distinction about the different types of benefits to be implemented. However, it is suggested to take this information with caution because the findings could be influenced by elements from the environment where the study participants have developed. In this case, it is recommended to examine the labor values in each organization and adjust human management practices according to what has been obtained.

As for the limitations presented by this research despite the rigor with which it was carried out, it is necessary to mention the following. First, the sample collected from participants was collected only in Colombia, reason for which it would be interesting to expand the scope to other countries in Latin America in order to carry out comparisons that contribute to the distinctions made by gender in a more global context. This would widen the knowledge barrier in this area and strengthen these countries' position on human resources. Secondly, the study is transactional, making it difficult to understand whether work values change as people grow or reach important levels in their professional development. In this sense, it is suggested to carry out longitudinal research that provides data on the stage of life or career of workers, in order to achieve a greater adjustment between what the individual wants from the personal level and what the organization expects of him.

Finally, it is suggested to address future research that is complementary to the issue of labor values. In the first instance, examine whether there are differences that can be attributed to the generation to which the individual belongs and that would continue to contribute to the explanation of why men and women present or develop different values towards their work environment. Likewise, analyze whether these values can have an impact on the performance of the organization, as well as examine them with behavioral variables such as commitment and satisfaction. These scopes would allow to expand the knowledge about the behaviors and behaviors of workers in companies and their relationship with organizational results.

Referencias bibliográficas

Bacher, J., Beham-Rabanser, M. and Forstner, M. (2022). Can work value orientations explain the gender wage gap in Austria? *International Journal of Sociology, 52*(3), 208-228. https://doi.org/10.1080/00207659.2022.2042114

Baranik, L., Wright, N. and Smith, R. (2022). Desired and obtained work values across 37 countries: a psychology of working theory perspective. *International Journal of Manpower, 43*(6), 1338-1351. https://doi.org/10.1108/ijm-12-2020-0555

Baselga-Pascual, L. and Vahamaa, E. (2021). Female leadership and bank performance in Latin America. *Emerging Markets Review, 48*, 1-20. https://doi.org/10.1016/j.ememar.2021.100807

Bosch, M. and Hernández, T. (2020). *A closer look to Millennials in Chile: How they perceive the new ideal worker. In the new ideal worker* (pp. 49-72). Springer, Cham. https://bit.ly/4e1DKz7

Cachón-Rodríguez, G., Blanco-González, A., Prado-Román, C. and Del-Castillo-Feito, C. (2022). How sustainable human resources management helps in the evaluation and planning of employee loyalty and retention: Can social capital make a difference? *Evaluation and Program Planning, 95*, 1-10. https://doi.org/10.1016/j.evalprogplan.2022.102171

Cárdenas-Angarita, G., Fajardo, E., Romero, H. (2020). Brecha ocupacional de género en la industria manufacturera en Colombia. *Punto de Vista, 11*(18), 31-46. https://doi.org/10.15765/pdv.v11i18.2353

Cemalcilar, Z., Jensen, C. and Tosun, J. (2019). Gendered intergenerational transmission of work values? A country comparison. *The ANNALS of the American Academy of Political and Social Science, 682*(1), 125-138. https://doi.org/10.1177/0002716218823681

Chillakuri, B. (2020). Understanding Generation Z expectations for effective onboarding. *Journal of Organizational Change Management, 33*(7), 1277-1296. https://doi.org/10.1108/JOCM-02-2020-0058

Choi, Y. (2017). Work values, job characteristics, and career choice decisions: evidence from longitudinal data. *The American Review of Public Administration, 47*(7), 779-796. https://doi.org/10.1177/0275074016653469

Dahiya, R. and Raghuvanshi, J. (2023). Do values reflect what is important? Exploring the nexus between work values, work engagement and job burnout. *International Journal of Organizational Analysis, 31*(5), 1414-1434. https://doi.org/10.1108/ijoa-02-2021-2608

Dajani, M. (2018). Differences in work values by gender and generation: evidence from Egypt. *International Journal of Business Administration, 9*(2), 9-20. https://doi.org/10.5430/ijba.v9n2p9

Dose, J. (1997). Work values: An integrative framework and illustrative application to organizational socialization. *Journal of Occupational and Organizational Psychology, 70*(3), 219-240. https://doi.org/10.1111/j.2044-8325.1997.tb00645.x

Drewery, D., Truong, M. and Fannon, A. (2023). Gen Z students' work-integrated learning experiences and work values. *Higher Education, Skills and Work-Based Learning*. https://doi.org/10.1108/heswbl-02-2023-0050

Eagly, A. and Wood, W. (2012). Social role theory. En P. A. M. Van Lange, A. W. Kruglanski y E. T. Higgins (eds.), *Handbook of theories of social psychology* (pp. 458-476). Sage Publications Ltd. https://doi.org/10.4135/9781446249222.n49

Eagly, A., Nater, C., Miller, D., Kaufmann, M. and Sczesny, S. (2020). Gender stereotypes have changed: a cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. *American Psychological Association, 75*(3), 301-315. https://doi.org/10.1037/amp0000494

Elizur, D. (1984). Facets of work values: A structural analysis of work outcomes. *Journal of Applied Psychology, 69*, 379-389. https://doi.org/10.1037/0021-9010.69.3.379

Fajardo, E., Romero, H., Álvarez, M. C., Vargas, J. M. (2018). Participation of women in the labor market in Colombia: challenges and recent trends. *Revista Espacios, 39*(48), 12. https://bit.ly/3AFiJfk

Galperin, H. and Arcidiacono, M. (2021). Employment and the gender digital divide in Latin America: A decomposition analysis. *Telecommunications Policy, 45*, 1-12. https://doi.org/10.1016/j.telpol.2021.102166

García, G., Gonzáles-Miranda, D., Gallo, O. and Román, J. (2023). Millennials and the gender wage gap: do millennial women face a glass ceiling? *Employee Relations, 45*(2), 366-386. https://doi.org/10.1108/er-05-2021-0179

Gilbert, R., Burnett, M., Phau, I. and Haar, J. (2010). Does gender matter? A review of work-related gender commonalities. *Gender in Management: An International Journal, 25*(8), 676-699. https://doi.org/10.1108/17542411011092336

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Godlewska-Werner, D., Peplińska, A., Zawadzka, A. and Połomski, P. (2020). Work motives in the context of generational differences, gender differences, and preferred values. *Polish Psychological Bulletin, 51*(2), 116-125. https://doi.org/10.24425/ppb.2020.133769

Hair, J., Black, W., Babin, B. and Anderson, R. (2019). *Multivariate Data Analysis*. Editorial Cengage Learning, Reino Unido.

Huang, W., Shen, J., Yuan, C. and Li, M. (2021). Roles of gender and basic need satisfaction in decent work perception and voice behavior. *Employee Relations, 43*(1), 263-278. https://doi.org/10.1108/ER-03-2020-0107

Karriker, J., Chullen, C., Adeyemi-Bello, T. and Xi, X. (2021). Gender and generation: job expectations of Chinese professionals and students amid complexity and change. *The Journal of Applied Business and Economics, 23*(2), 196-209. https://doi.org/10.33423/jabe.v23i2.4101

Konrad, A., Ritchie, E., Lieb, P. and Corrigall, E. (2000). Sex Differences and Similarities in Job Attribute Preferences: A Meta-Analysis. *Psychological Bulletin, 126*(4), 593-641.https://doi.org/10.1037/0033-2909.126.4.593

Krahn, H. and Galambos, N. (2014). Work values and beliefs of 'Generation X' and 'Generation Y'. *Journal of Youth Studies, 17*(1), 92-112. https://doi.org/10.1080/13676261.2013.815701

Lassleben, H. and Hofmann, L. (2023). Attracting Gen Z talents: do expectations towards employers vary by gender? *Gender in Management: An International Journal*, 545-560. https://doi.org/10.1108/gm-08-2021-0247

Li, Y., Song, Y., Yang, Y. and Huan, T. (2023). Exploring the influence of work values on millennial hospitality employees' turnover intentions: an empirical assessment. *Current Issues in Tourism, 26*(10), 1635-1651. https://doi.org/10.1080/13683500.2022.2062307

Lyons, S. (2003). *An exploration of generational values in life and at work*. (Doctoral Dissertation Abstracts International) Ottawa. https://bit.ly/4794yeO

Maseda, A., Iturralde, T., Aparicio, G. and Cooper, S. (2023). Building bridges between gender and family business literature to advance women's empowerment. *Gender in Management: An International Journal*. https://doi.org/10.1108/gm-02-2022-0056

Masuda, A., Sortheix, F., Holtschlag, C. and Morales, C. (2023). When gender is more likely to predict pay via self-enhancement values and working hours: The role of country's level of gender inequality. *Applied Psychology*, 1-22. https://doi.org/10.1111/apps.12467

Mohammadi, Z., Bhati, A. and Ng, E. (2023). 20 years of workplace diversity research in hospitality and tourism: a bibliometric analysis. *Equality, Diversity and Inclusion: An International Journal, 42*(4), 551-571. https://doi.org/10.1108/edi-02-2022-0046

Netchaeva , E., Sheppard, L. and Balushkina, T. (2022). A meta-analytic review of the gender difference in leadership aspirations. *Journal of Vocational Behavior, 137*, 1-23. https://doi.org/10.1016/j.jvb.2022.103744

Ng, E., Lyons , S. and Schweitzer, L. (2018). Work Value Priorities. En *Generational Career Shifts, Leeds* (pp. 45-69). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78714-583-220181004

Ng, E., Posch, A., Köllen, T., Kraiczy, N. and Thom, N. (2022). Do "one-size" employment policies fit all young workers? Heterogeneity in work attribute preferences among the Millennial generation. *Business Research Quarterly,* 1-22. https://doi.org/10.1177/23409444221085587

Pedraja-Rejas, L., Rodríguez-Ponce, E. and Muñoz-Fritis, C. (2022). Human resource management and performance in Ibero-America: Bibliometric analysis of scientific production. *Management Letters, 22*(2), 123-137. https://doi.org/10.5295/cdg.211569lp

Pennings, J. (1970). Work-value systems of white-collar workers. *Administrative Science Quarterly, 15*(4), 397-406. https://doi.org/10.2307/2391330

Rani, N. and Samuel, A. (2016). A study on generational differences in work values and person-organization fit and its effect on turnover intention of Generation Y in India. *Management Research Review, 39*(12), 1695-1719. https://doi.org/10.1108/mrr-10-2015-0249

Ramírez, I., Fornells, A. and Del Cerro, S. (2022). Understanding undergraduates'work values as a tool to reduce organizational turnover. *Education + Training, 64*(3), 445-459. https://doi.org/10.1108/et-07-2021-0254

Ren, H., Zhang, Q. and Zheng, Y. (2021). Impact of work values and knowledge sharing on creative performance. *Chinese Management Studies, 15*(1), 86-98. https://doi.org/10.1108/CMS-08-2019-0287

Silva, J. and Carvalho, A. (2021). The Work Values of Portuguese Generation Z in the Higher Education-to-Work Transition Phase. *Social Sciences, 10*(297), 1-16. https://doi.org/10.3390/socsci10080297

Sharabi, M. (2014). Gender preferences of work values and the effect of demographic factors. The *International Journal of Interdisciplinary Organizational Studies, 8*(2), 13-24. https://doi.org/10.18848/2324-7649/cgp/v08i02/59388

Stiglbaue, B., Penz, M. and Batinic, B. (2022). Work values across generations: Development of the New Work Values Scale (NWVS) and examination of generational differences. *Frontiers in Psychology*, 1-11. https://doi.org/10.3389/fpsyg.2022.1028072

Trzebiatowski, T. and Triana, M. (2020). Family responsibility discrimination, power distance, and emotional exhaustion: when and why are there gender differences in work–life conflict? *Journal of Business Ethics, 162*, 15-29. https://doi.org/10.1007/s10551-018-4000-5

Twenge, J. (2010). A review of the empirical evidence on generational differences in work attitudes. *Journal of Business Psychology, 25*, 201-210. http://doi.org/10.1007/s10869-010-9165-6

Vazquez, P., Botero, I., Arzubiaga, U. and Memili, E. (2024). What makes Latin American family firms different? Moving beyond cross-cultural comparisons. *Journal of Family Business Strategy, 15*, 1-9. https://doi.org/10.1016/j.jfbs.2023.100605

Villegas-Mateos, A. (2022). A gendered perspective applied to latin american entrepreneurial ecosystems. En Pickernell, D. G., Battisti, M., Dann, Z. and Ekinsmyth, C. (eds.), *Disadvantaged Entrepreneurship and the Entrepreneurial Ecosystem* (Contemporary Issues in Entrepreneurship Research, Vol. 14), Emerald Publishing Limited, Bingley, pp. 63-85. https://doi.org/10.1108/S2040-724620220000014004

Warr, P. (2008). Work values: Some demographic and cultural correlates. *Journal of Occupational and Organizational Psychology, 81*, 751-775. https://doi.org/10.1348/096317907x263638

Waterwall, B., Chullen, C., Barber III, D. and Adeyemi-Bello, T. (2023). The roles of experience and gender in shaping work values. *Higher Education, Skills and Work-Based Learning, 13*(1), 131-147. https://doi.org/10.1108/heswbl-03-2022-0078

Zwerg-Villegas, A., Bernal-Torres, C., Thoene, U., Camacho, F., Guzmán-Ibarra, L. and Torralba-Chávez, E. (2022). The relationship between human resource diversity, innovation activity and internationalization intensity in Colombian and Mexican firms. *Global Business Review,* 1-26. https://doi.org/10.1177/09721509221129680

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Retos
Revista de Ciencias de Administración y Economía

october 2024-march 2025
pp. 315-329
https://doi.org/10.17163/ret.n28.2024.09

Core self-evaluation: an empirical study in the in the Colombian context

La autoevaluación central: un estudio empírico en el contexto colombiano

Orlando E. Contreras-Pacheco
Full professor and researcher at Universidad Industrial de Santander, Colombia
ocontrer@uis.edu.co
https://orcid.org/0000-0002-3584-7063

Martha Liliana Torres-Barreto
Associate professor and researcher at Universidad Industrial de Santander, Colombia
mltorres@uis.edu.co
https://orcid.org/0000-0002-4388-5991

Juan Camilo Lésmez-Peralta
Assistant professor and researcher at Universidad Industrial de Santander, Colombia
jclesper@uis.edu.co
https://orcid.org/0000-0003-0400-0270

Received on: 09/01/24 **Revised on:** 02/04/24 **Approved on:** 02/06/24 **Published on:** 01/10/24

Abstract: core self-evaluation (CSE) refers to the essential judgments individuals make regarding their self-performance. This study aims to empirically examine the correlation between employee's CSE and key organizational variables, encompassing happiness, motivation, job satisfaction, work commitment, and person-job fit. Through a cross-sectional self-administered instrument, the research delves into the perspectives of 241 employees within four retail industry companies in northeastern Colombia. Employing a partial least squares-structural equation model, the analysis explores the relationships among these variables. The results identify a lack of full reciprocity in the examined associations. When treating CSE as the dependent variable, the study validates only the hypotheses proposing job satisfaction and motivation as independent variables. Nevertheless, a significant association emerges between CSE, and all examined organizational variables when applying a supplemental analysis with inverted hypotheses. These findings emphasize the importance of adopting a multifaceted approach to enhance organizational outcomes for employees in a business setting. Furthermore, they suggest that, beyond conventional knowledge, CSR could function as a significant catalyst for various organizational behaviors, thereby advocating for its exploration and application in similar studies.

Keywords: organizational behavior, core self-evaluation, work performance, correlational study, non-reciprocal associations.

Resumen: la autoevaluación central (AEC) se refiere a los juicios esenciales que los individuos hacen sobre su propio desempeño. Este estudio tiene como objetivo examinar empíricamente la correlación entre la AEC de los empleados y algunas variables organizacionales clave que incluyen felicidad, motivación, satisfacción laboral, compromiso, y ajuste persona-trabajo. A través de un instrumento autoadministrado de corte transversal, el estudio ahonda en las perspectivas de 241 empleados en cuatro empresas del sector minorista en el noreste de Colombia. Utilizando un modelamiento de ecuaciones estructurales mediante mínimos cuadrados parciales, el análisis explora las relaciones entre estas variables. Los resultados apuntan a una reciprocidad parcial en las asociaciones evaluadas. Al considerar la AEC como variable dependiente, se validan solo las hipótesis que proponen la satisfacción laboral y la motivación como variables independientes. Sin embargo, surge una asociación significativa entre la AEC y todas las variables organizacionales examinadas al aplicar un análisis complementario con hipótesis invertidas. Estos hallazgos subrayan la importancia de adoptar un enfoque multifacético en aras de mejorar los resultados organizacionales orientados a los empleados pertenecientes a un contexto empresarial. Además, proponen que, además del conocimiento convencional, la AEC podría funcionar como un catalizador importante para diversos comportamientos organizacionales relevantes, abogando así por su exploración y aplicación en estudios similares.

Palabras clave: comportamiento organizacional, autoevaluación central, desempeño laboral, estudio correlacional, asociaciones no-recíprocas.

Suggested citation: Contreras-Pacheco, O. E., Torres-Barreto, M. L. and Lésmez-Peralta, J. C. (2024). Core self-evaluation:an empirical study in the Colombian context. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 315-329. https://doi.org/10.17163/ret.n28.2024.09

Introduction

Beyond a categorical interpretation aimed at defining an individual's outcomes, work performance can also be viewed as a set of behaviors, actions undertaken by the employee. The results are not solely indicative of an individual's performance but are also influenced by various external factors (Campbell and Wiernik, 2015). Therefore, the performance of employees is shaped by a combination of their behaviors and actions, as well as the external conditions that influence these outcomes. In organizational literature, individual performance is evaluated in two primary ways: objectively, through indisputable evidence such as sales and quantity of production, and subjectively, through judgments made by others and the employee's performance self-assessment (Schachter, 2010). This latter approach, referred to in this work as core self-evaluation (CSE), emphasizes the employee's internal assessment of their performance.

The present study adopts the CSE approach and aims to establish whether there is a relationship between this construct and other notions of organizational behavior. However, the study chooses to evaluate the behavior of these correlations in two ways: first, considering CSE as a consequent variable (i.e., original model), and subsequently, as an antecedent variable (inverse model). In this study, the notions or behaviors examined are limited to six constructs: Happiness (HP), Motivation (MT), Job Satisfaction (JS), Work Commitment (CM), and Person-Job Fit (JF). The fieldwork is conducted in four companies in the Colombian retail industry, where a self-administered cross-sectional instrument is applied to a sample of employees. After hypothesis formulation, these data are analyzed using two partial least squares-structural equation modeling (PLS-SEM) models: one for the original hypotheses and another for the inverted hypotheses.

The results obtained are dissimilar. With the original model, the study accepts the hypotheses where the relationships between MT and JS with the CSE are proposed, suggesting that these two former variables are possible activators in achieving better perceptions of one's work performance. However, when analyzing the inverse model, it is evident that CSE has a significant relationship with all the organizational variables studied, and, in that sense, it is shown that this variable also acts as a possible activator on other behaviors.

Overall, this research suggests the importance of considering multiple factors in evaluating and improving work performance. At the same time, the study highlights the relevance of understanding this behavior not only as a variable resulting from traditional organizational behaviors but also as appreciating its true value and understanding it as an antecedent variable. The theoretical but mainly practical implications will be put into perspective at the end of the document.

In selecting the factors to evaluate the correlation with CSE, a multidimensional approach supported by current academic literature on organizational behavior has been considered. In this sense, happiness at work has been included due to its intrinsic connection with productivity and general satisfaction in the workplace (Oswald *et al.*, 2015). Likewise, MT, an essential element in self-determination theory, is a key predictor of work performance (Deci *et al.*, 2017). Finally, JS, CM, and JF have been selected in line with the theory of person-job fit, supported by the research of Kristof-Brown (2015), which suggests that the congruence between individual characteristics and job demands is positively related to the productivity obtained. This selection of factors is based on a deep understanding of how these interrelated elements influence individual perceptions of work performance. In this spirit, the theoretical approach provides a comprehensive framework supported by the most recent academic research in organizational behavior.

Core-self evaluation

Employees' work performance denotes a sort of efficiency and productivity indicator helpful for an entire organization. However, work performance can also be defined as a construct comprising behaviors under employees' control that contribute to organizational objectives; it can be understood as a set of behaviors, not the external variables that define these behaviors or their results (Campbell and Wiernik, 2015).

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Along these lines, core self-evaluation reflects an individual's overall self-concept and refers to people's subjective evaluation of their performance. In a more specific sense, CSE represents the fundamental perceptions individuals have about their worth and capabilities in relation to their in-role and extra-role job performance. It integrates key psychological constructs such as self-esteem, generalized self-efficacy, locus of control, and emotional stability (Kammeyer-Mueller *et al*., 2009).

A variety of factors can influence this self-assessment. For instance, a study developed by Downes *et al.* (2021) found that work self-efficacy, the belief in one's ability to carry out work tasks successfully, is positively related to core self-evaluation. This suggests that people who perceive themselves as more competent and effective at their jobs also tend to evaluate their work performance positively. Similarly, other studies provide evidence that perceptions related with CSE can be influenced by organizational constructs such as organizational support (Ding *et al.,* 2020), socialization tactics (Song *et al*., 2015), and work-family balance (Katou, 2021), among others.

Literature also insinuates that individual's feedback may influence CSE. According to Su *et al.* (2022), the quality and type of feedback employees receive from their superiors can affect their work performance evaluation. The authors found that constructive and specific feedback was associated with greater perceptions of better-perceived work performance. However, it is important to remember that core self-evaluation may not always coincide with objective evaluations made by others. For instance, Dunning *et al.* (2003) highlight a pervasive human inclination to overestimate one's performance and abilities, a phenomenon extensively substantiated over time. This phenomenon suggests that people may have a more favorable view of their performance than external evaluations.

But beyond what has been previously mentioned, it is necessary to comment that authors such as Chang *et al.* (2012), Gabini (2018) and Yazdanshenas (2021) address the relationship between different forms of CSE and other variables in their studies. However, it is important to highlight that it mainly considers work performance as an antecedent rather than a result variable. This perspective offers a valuable new understanding of the factors that may influence core self-evaluation, a perspective that, as previously mentioned, is adopted in the present study.

In conclusion, CSE constitutes the subjective evaluations of a person's performance at work. Such perceptions of work performance may differ from objective appraisals or evaluations made by others. CSE can be influenced by, but also can influence several organizational constructs.

Happiness

The concept of happiness depends on each author's approach to their work, which is why many researchers refer to it as "subjective well-being". In fact, countless studies conclude that happiness arises from a subjective assessment made by each individual regarding the achievements in their own life (Oswald *et al*., 2015).

Happiness at work is important because most people do their job out of necessity or desire. Therefore, happiness can be a source of income and a way to practice personal skills, face challenges, and work toward personal achievement. Happiness at work can be analyzed globally and at the organizational or business level, with most studies focusing on the employee as an individual or as part of the workgroup or environment in which they operate (Bellet *et al*., 2023). In this sense, certain emotions, motivations, personalities, and tasks combine to predict performance. However, through the various tasks typically required of employees, happiness is likely to benefit overall productivity (Zelenski *et al*., 2008).

In this regard, authors such as Lin *et al*. (2022) emphasize that CSE not only encompasses people's evaluations of their own abilities and self-esteem but also significantly affects their happiness and overall well-being at work. This underscores the importance of understanding the bidirectional relationship between CSE and happiness, and thus, the study suggests the following hypotheses:

H1: H is positively associated with CSE.

H1i: CSE is positively associated with H.

Motivation

Motivation can be defined as an individual's need to show performance and willingness to achieve in their environment (Ghaffari *et al.*, 2017). This behavior necessarily requires that there be some need of any degree; This can be absolute, relative, pleasure, or luxury. Whenever a person is motivated to do something, that "something" is considered necessary or convenient (Rheinberg and Vollmeyer, 2018). Motivated people are always aware of the goal to be achieved and direct their efforts to achieve that goal. Accordingly, it seems important to understand motivation as a predictor of work performance (Inam *et al.*, 2023).

Rheinberg and Vollmeyer (2018) point out that motivation is a key factor in the workplace, which depends on internal factors, such as affiliation with the organization, personal achievement, and power, as well as external factors, such as constant supervision of organizational leaders, salary improvements, incentives for improving professional skills, promotion, and organizational advancement, among others; that is, motivation depends on both individual and organizational factors. The importance of work motivation lies in how this factor influences an organization's human capital, who, by feeling motivated, can adapt more easily to the business world (Deci *et al.*, 2017). More emphatically, Johnson *et al.* (2016) highlight that CSE significantly impact motivational outcomes, suggesting that individuals with high CSE are more likely to be motivated and perform better in their tasks. Therefore, we propose the following hypotheses:

H2: MT is positively associated to CSE.

H2i: CSE is positively associated to MT.

Job satisfaction

Job satisfaction is an attitude variable that indicates employees' positive or negative perception of their work, both in general and in the different specific factors surrounding it (Guayacán *et al.*, 2022). Job satisfaction varies according to the degree of agreement between what an employee wants and looks for in their job and what they receive from it; therefore, the perception of a greater negative difference between what is expected and what is found leads to less satisfaction (Wright and Davis, 2003). Its deep understanding and the discovery of its antecedents are necessary, given that sufficient empirical evidence confirms a positive relationship between this attitude and achieving important positive results at the individual and organizational levels (Pujol-Cols and Dabos, 2018; Chiang-Vega *et al.*, 2021).

The perception of satisfaction or dissatisfaction would seem to be influenced by each person's needs, values, and expectations. In this sense, it should be noted that job satisfaction causes differ from employee to employee. For example, some important factors that predict a variation in this attitude may be the challenge and interest aroused by the work, the working conditions, the rewards received from the employer, and the relationship with colleagues and supervisors, among others (Lepold *et al.*, 2018). For this same reason, job satisfaction is a consequence of employees' work experience and, therefore, a variable that can be analyzed based on a direct inquiry about themselves in specific contexts (Guayacán *et al.*, 2022). Furthermore, research by Johnson *et al.* (2016) suggests that CSE plays a crucial role in shaping job satisfaction, indicating that individuals with high CSE are more likely to experience greater job satisfaction. Hence, the study posits the following hypotheses:

H3: JS is positively associated to CSE.

H3i: CSE is positively associated to JS.

Work Commitment

According to authors such as Mercurio (2015), each collaborator's commitment to their organization is more than the simple fact of working for a salary; It is a factor that makes him perform and feel part of it. Therefore, this commitment is necessary to give employees a clear sense of belonging to the organization and feel the mission, vision, objectives, values, and organizational goals as their own.

Employee's work commitment is made up of three components: affective commitment, which refers to an employee's emotional association with the organization; Followership commitment refers to the awareness of the costs associated with leaving the organization, such that the employee remains with the organization because they believe they need the job; and normative commitment that is associated with the feeling of obligation, where employees feel that they must remain in the organization (Prieto *et al.,* 2021). Schaufeli *et al.* (2002) describes work commitment (or engagement) as a positive, satisfying, work-related state of mind characterized by vigor, dedication, and absorption. Vigor refers to high levels of energy and mental resilience at work, the willingness to invest effort and persistence in the face of difficulties; dedication refers to being strongly involved in work and experiencing feelings of importance, enthusiasm, inspiration, pride, and challenge; and absorption refers to being fully concentrated and happily absorbed in one's work. In this spirit, the study suggests the following hypotheses:

H4: CM is positively associated to CSE.
H4i: CSE is positively associated to CM.

Person job-fit

Person-job fit refers to the match between an individual's competences (i.e., knowledge, skills, attitudes, and abilities) with the description of his or her job and the incentives eventually delivered to perform it (Kristof-Brown, 2015; Vogel and Feldman, 2009). Two different types of position-person compatibility have been identified in the literature. The first one, compatibility, is skills-demand, which is understood as the correspondence between the competences of individuals and the specific demands of the job. Once the employees achieve the needed competences to meet job demands, they are more likely to perform at a higher level, meet supervisors' expectancies, and stay on the job. The second type of person-job fit is needs-supplies, which is accomplished once the needs of individuals are satisfied by the external incentives related to their work. When the organization meets employees' affiliation, autonomy, and economic security needs through like-minded colleagues, schedule autonomy, and generous compensation, they experience greater job satisfaction and commitment to the organization (Vogel and Feldman, 2009). On the other hand, person-job fit is understood as the match between the person and the features of the position. In other words, person-job compatibility occurs when a person's knowledge, skills, and abilities are compatible with the demands and resources of the job (e.g., salary, working conditions, and fringe benefits), therefore satisfying both physiological and psychological needs and preferences of employees (Saufi *et al.*, 2020). The present research suggests these two final hypotheses:

H5: JF is positively associated to CSE.
H5i: CSE is positively associated to JF.

Materials and methods

The research design is correlational in nature. To achieve the research objective, after data collection, the variables were measured and analyzed through a PLS-SEM, which allows the analysis of complex relationships between variables and put into practice (i.e., testing the proposed hypotheses).

Data collection, sample sizes and measurement instruments

The study utilized an anonymous, structured cross-sectional questionnaire, including sociodemographic variables, to investigate employees' perceptions of their work performance. The measurement instruments, validated in the relevant literature, comprised a total of 87 items. Each scale, designed to assess distinct constructs, incorporated validated measures such as Core Self-Evaluation (18 items; Ramos *et al.,* 2019), Happiness (11 items; Ramírez *et al.,* 2019), Motivation (19 items; Gagné *et al.,* 2015), Job Satisfaction (11 items; Lepold *et al.,* 2018), Employee's Work Commitment (10 items; Prieto *et al*., 2021), and Person-Job Fit (six items; Vogel and Feldman, 2009). Respondents evaluated each variable using a five-point Likert scale (1: "Totally disagree" to 5: "Totally agree"). The inclusion of these validated scales in the survey ensured the reliability and validity of the obtained results. Additionally, the study controlled for company, gender, age, and seniority within each company.

The research focused on a sample of employees from four Colombian companies in the retail industry. Data collection involved direct in-person contact, with 296 self-administered questionnaires physically distributed. Ultimately, 241 questionnaires were deemed usable for data analysis (70 from Company A, 98 from Company B, 49 from Company C, and 24 from Company C).

The retail industry stands as a one of the cornerstones of any economy, playing a crucial role in driving economic growth and consumer satisfaction. Comprised of diverse companies offering goods and services directly to consumers, the retail sector contributes significantly to employment and commerce. Within this dynamic landscape, employees who directly engage with customers form the frontline ambassadors of these companies. Their role is critical, as they not only represent the face of the brand but also wield influence over customer experiences (Moss, 2021). The symbiotic relationship between employee engagement and customer satisfaction is evident, where content and motivated employees contribute positively to the overall shopping experience (Park *et al.,* 2021). Therefore, understanding the intricate dynamics of these employees' perceptions and work performance becomes paramount. This study aims to delve into the nuanced relationships within this context, recognizing the significance of the retail industry and the pivotal role played by employees in shaping the customer-facing facet of these businesses.

Data analysis

The model was analyzed and evaluated through PLS-SEM. This technique allows researchers to evaluate causal relationships between indicators and causal relationships of latent constructs (Hair *et al.,* 2017). The study used the suggested procedures by the relevant literature to evaluate the measurements and the structural model. The data were analyzed in the SmartPLS 4.0 software since it resolves relevant issues that arise when proposing structural equations, such as inadmissible solutions, indeterminacy of factors, and the no need for a normal distribution of data (Ringle *et al.*, 2015). To carry out the corresponding analysis, the methodology was divided into two phases: evaluation of the measurement model and evaluation of the structural model. First, the Smart PLS software was run to evaluate the reliability and validity of the measurement model.

This procedure was done by calculating Cronbach's Alpha (α), the composite reliability (CR), and the average variance extracted (AVE). Likewise, the factor loadings (λ) were obtained; they represent the individual reliability of each item towards its variable and the discriminant validity of the constructs was evaluated using the Fornell and Larcker criterion. Finally, to obtain discriminant validity, the square root of the AVE of a construct must be greater than its correlation with any other construct (Hair *et al.,* 2017).

As a second phase in evaluating the structural model, the "bootstrapping" function was run to verify the proposed hypotheses. First, the significance of the relationship between the variables was estimated. To do this, the t-student statistic, the p-value, and the path coefficient (β) were obtained for each hypothesis. With the interpretation of these results, the respective conclusions are obtained.

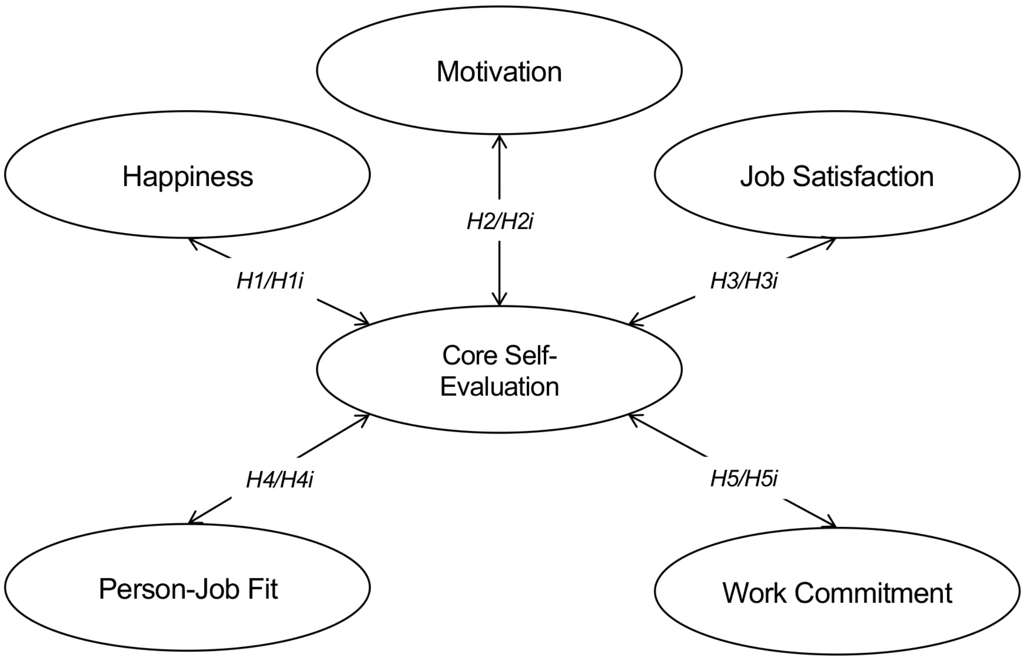
Measurement model evaluation

The first step considers a description of the model (Hair *et al.,* 2017). For this purpose, both the original model (with hypotheses presented as *Hn*) and the inverse model (with hypotheses presented as *Hni*) are described graphically in Figure 1.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Figure 1

Structural Model - with "original" (Hn) and "inverse" (Hni) hypotheses



The individual reliability of the variables is evaluated through the λ of the elements of the model, which must have a value greater than the minimum acceptable value of 0.50. The criterion is taken to accept those items whose value is greater than or equal to 0.50; Items with λ<0.5 that do not meet the minimum acceptable will be considered for elimination only if the elimination results in an increase in the composite reliability and AVE above the recommended value (Hair *et al.*, 2017).

As stated by Hair *et al.* (2017), it is found that, out of the 18 original CSE items, six items are outside the indicated levels, which is why CSE11, CSE13, CSE14, CSE15, CSE16, CSE17, and CSE18 were discarded. Within the HP construct, HP06, HP07, and HP08 were eliminated. Also, MT01, MT02, and MT03 were discarded from the MT construct. Regarding JS, items JS01, JS02, JS04 and JS06 were eliminated. Continuing with CM, two out of its 10 items were discarded, specifically AC09 and AC10. Lastly, regarding the JF construct, all its items met the values proposed in the theory.

The Fornell and Larcker (1981) criterion was used to judge discriminant validity. According to this, the square root of the AVE, which corresponds to the main diagonal of the table, must be greater than the correlations with the other constructs. The model's constructs share more variance with their indicators than other constructs. Following the proposed logic, about the JS construct, item JS03 was eliminated; in the CM construct, item AC08 was eliminated; in the MT construct, items MT09, MT10, MT11, MT15, and MT19 were eliminated. These elements were discarded from the data set because they generated conflicts in their analysis and distorted the results. It is important to mention that the analyses above were carried out individually for the two proposed structural models; However, the same result was obtained in both cases.

An analysis was carried out to determine the model's reliability using α and CR as measures of internal consistency. For both indices, a value of 0.7 is accepted for modest reliability in the early stages of the research and 0.8 for basic investigation. For convergent validity, AVE is considered (Chin, 1998). According to Fornell and Larcker (1981), 0.5 is suggested as the lower limit of an acceptable AVE, which means that more than 50%

of the construct's variance is due to its indicators; in this way, the adjustment of the indicators will be significant. They will be highly correlated; then, the Fornell and Larcker (1981) criterion and the HTMT ratio criterion were used to determine the discriminant validity.

The model was evaluated through the statistical significance of the loadings and estimating the R^2 values. The R^2 value measures a model's ability to explain a construct's variability. Chin (1998) considers that an R^2 should have a value of 0.67, 0.33, and 0.10 (substantial, moderate, and weak, respectively).

Structural model evaluation

As mentioned above, the coefficients' statistical significance is obtained using the "bootstrapping" function. β values represent standardized regression weights. Standardized regression coefficients, also known as path coefficients, are essential for analyzing the research model since they allow the relationships between the hypotheses to be identified. Values of $\beta \geq 0.2$ are considered significant, although ideally, $\beta \geq 0.3$ is expected (Chin, 1998).

The *p*-value is used to evaluate the statistical significance of the coefficients in a structural equation model. It is calculated using the bootstrapping method and compared to a significance threshold to determine the relevance of the relationships represented in the model, usually 0.05. Suppose the *p*-value is less than the significance threshold. In that case, the coefficient is considered statistically significant, and evidence supports the relationship represented by that coefficient in the model (Hair *et al.*, 2017). The same technique is used for the purpose of evaluating the eventual effect of the control variables.

Results

In the first instance, to thoroughly understand the study's sample, we present the results in terms of descriptive statistics focusing on control variables—age, seniority and gender within each of the four companies analyzed and in total. See Table 1. These demographic factors provide crucial insights into the participant composition.

Table 1

Description of the sample

	Company A	Company B	Company C	Company D	Total
Age (years); $\bar{x}(\sigma)$	32,45 (6,32)	27,83 (4,21)	30,12 (7,75)	29,3(5,21)	**29,77 (5,32)**
Seniority (years); $\bar{x}(\sigma)$	6,27 (3,41)	4,21(2,28)	4,99 (1,63)	3,54 (1,19)	**4,87 (2,57)**
Gender (%)					
Male %	45,71	42,86	40,82	20,83	**41,08**
Female %	54,29	54,08	55,10	75,00	**56,43**
Other %	0,00	2,04	0,00	0,00	**0,83**
N/A %	0,00	1,02	4,08	4,17	**1,66**

Moreover, the study presents arithmetic means ($\bar{x}$) and standard deviations (σ) for an overview of the overall data behavior, as outlined in Table 2. Concurrently, an assessment of the model's reliability and trustworthiness is provided, encompassing an evaluation of internal consistency and convergent validity. Subsequently, we proceed to validate the hypotheses posited in the structural model. This process aims to determine the effectiveness of the selected constructs in explaining the variability of core self-evaluation (and *vice versa*) and verify if the anticipated relationships between them hold true. The results derived from this analysis enable us to gauge the model's quality and the validity of the formulated hypotheses.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

To ensure individual reliability, the variables underwent evaluation based on λ loadings. The reliability of each construct was further examined through α and CR analyses. Additionally, the AVE for each construct exceeded the recommended threshold of 0.5, as detailed in Table 2.

Table 2

Reliability and Convergent Validity Criteria

Latet variable	Element	$\bar{x}$	σ	λ	α	CR	AVE
Core Self-Evaluation (CSE)	**AEC01**	4,347	0,882	0,825	0,908	0,928	0,545
	AEC02			0,867			
	AEC03			0,762			
	AEC04			0,842			
	AEC05			0,822			
	AEC06			0,731			
	AEC07			0,523			
	AEC08			0,679			
	AEC09			0,812			
	AEC10			0,590			
	CSE12			0,567			
Happiness (HP)	**F01**	4,133	1,478	0,545	0,861	0,892	0,513
	F02			0,767			
	F03			0,774			
	F04			0,803			
	F05			0,617			
	F09			0,680			
	F10			0,821			
	F11			0,674			
Motivation (MT)	**M04**	4,006	1,950	0,707	0,906	0,926	0,534
	M05			0,629			
	M06			0,692			
	M07			0,624			
	M08			0,666			
	M12			0,749			
	M13			0,723			
	M14			0,774			
	M16			0,819			
	M17			0,879			
	M18			0,736			
Job Satisfaction (JS)	**SL05**	4,032	1,278	0,477	0,866	0,881	0,558
	SL07			0,784			
	SL08			0,844			
	SL09			0,819			
	SL10			0,753			
	SL11			0,745			

Latet variable	Element	x̄	σ	λ	α	CR	AVE
Work Commitment (CM)	CL01	3,890	2,011	0,788	0,892	0,899	0,560
	CL02			0,830			
	CL03			0,765			
	CL04			0,736			
	CL05			0,687			
	CL06			0,758			
	CL07			0,660			
Person-Job Fit (JF)	PT01	3,741	0,798	0,566	0,854	0,879	0,558
	PT02			0,876			
	PT03			0,851			
	PT04			0,507			
	PT05			0,863			
	PT06			0,732			

To evaluate discriminant validity, the square root of the AVE of a construct must be greater than its correlation with any other construct (Fornell and Larcker, 1981). As seen in Table 3, this criterium is accomplished, thus discriminant validity is achieved.

Table 3

Discriminant validity

	CSE	HP	MT	JS	CM	JF
CSE	0,752					
HP	0,408	0,727				
MT	0,593	0,644	0,732			
JS	0,586	0,607	0,673	0,754		
CM	0,539	0,540	0,722	0,725	0,748	
JF	0,391	0,552	0,658	0,700	0,724	0,739

Furthermore, the model was evaluated through the statistical significance of the loadings and estimating the R^2 values. In the initially proposed model, an $R^2 = 0.471$ (moderate value) was obtained. It was determined, then, that the latent variables analyzed presented moderate variability in relation to CSE, representing approximately 47.10% of the variance. These results suggest validity of the model.

In the analysis of the inverse model (presented in Table 4), a value of 0.168 (weak value) was obtained for the relationship with HP, 0.312 (weak value) for the relationship with MT, 0.401 (moderate value) for the relationship with JS, 0.306 (weak value) for the relationship with CM, and 0.217 (weak value) for the relationship with JF. Analogously, these values represent the percentage of variability of the constructs concerning CSE. That is, CSE explains 16.8% of the variability of HP, 31.2% of the variability of MT, 40.1% of the variability of JS, 30.6% of the variability of CM, and 21.7% of the variability of JF.

Table 4

Variability (R^2) - Inverse model

	HP	MT	JS	CM	JF
R^2	0,168	0,312	0,401	0,306	0,217

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

After establishing the measurement model, the study assessed control variables. Notebly, the variables company, gender, age, and seniority within each company were found to have no effect (p>0.1) on CSE; thus, confirming their role as control variables.

Subsequently, the hypotheses, both original and inverse, underwent testing using the bootstrapping method with 5000 subsamples, as proposed by Hair *et al.* (2017). The results of the original hypothesis diverge from the inverse hypotheses.

Regarding the original model (Table 5), only two out of the five proposed hypotheses demonstrated a significant influence on the dependent variable (CSE). These findings indicate that, within this study's context, MT and JS are notable predictors of an important organizational outcome like CSE, whereas HP, CM, and JF do not seem to act as a significant influence.

Notebly, the relationship between JS and CSE is stronger than the relationship between MT and CSE, as indicated by the higher path coefficient (β = 0.324 for JS vs. β = 0.275 for MT). This suggests that JB may have a more direct or immediate impact on employees' self-assessment of their capabilities and worth within the organization. The higher intensity of this relationship could be due to the more intrinsic and immediate feedback that JS provides, compared to MT, which might be influenced by a broader range of external factors.

Table 5

Original model path coefficient

Hn	Asociación	β	valor *t*	valor *p*	Resultado
H1	HP → CSE	0,024	0,445	0,590	*H1* Rejected
H2	MT → CSE	0,275	1,972	0,048	*H2* Accepted
H3	JS → CSE	0,324	2,111	0,044	*H3* Accepted
H4	CM → CSE	0,071	0,843	0,206	*H4* Rejected
H5	JF → CSE	0,121	1,506	0,091	*H5* Rejected

In contrast, the inverted hypotheses (Table 6) reveal a highly significant effect when CSE acts as their antecedent variable. The results show that this perception significantly influences the five organizational constructs on study, validating the five inverted hypotheses raised. This finding is of great relevance since it confirms the importance of the main variable in explaining the influence on the study's different constructs, allowing for the prediction of its behavior. The significant path coefficients and p-values across all hypotheses suggest that CSE is a foundational psychological construct that drives key aspects of employee well-being and performance within the organizational context.

Interestingly, the inverse model results highlight that CSE has a particularly strong impact on JF and JS, as evidenced by the highest path coefficients (β = 0.609 for JF and β = 0.553 for JS). This suggests that CSE has a significant influence on how well individuals perceive they fit with their job roles and how satisfied they feel with their jobs. The superior effect of CSE on these constructs may be due to the fundamental nature of self-evaluation in shaping one's perception of job compatibility and satisfaction. High CSE likely enhance an individual's confidence and positivity, leading to a better alignment with job requirements and greater job satisfaction as they feel more competent and valued in their roles.

Table 6

Inverse model path coefficient

Hni	Association	β	*value t*	*value p*	Result
H1i	CSE → HP	0,401	3,305	0,000	*H1i* Aceptada
H2i	CSE→MT	0,362	2,939	0,000	*H2i* Aceptada

Hni	Association	*β*	*value t*	*value p*	Result
H3i	CSE→ JS	0,553	6,447	0,000	*H3i* Aceptada
H4i	CSE→ CM	0,410	3,508	0,000	*H4i* Aceptada
H5i	CSE→ JF	0,609	7,789	0,000	*H5i* Aceptada

In a nutshell, the findings from both the original and inverse model path coefficients provide a comprehensive understanding of the intricate relationships between CSE and various organizational constructs. The original model highlights that MT and JS are significant predictors of CSE, while HP, CM, and JF do not show a significant direct influence. Conversely, the inverse model robustly supports the notion that CSE acts as a crucial antecedent to a range of positive organizational outcomes, including HP, MT, JS, CM, and JF.

Discussion and conclusions

The current study delves into the intricate connections between core self-evaluation (Kammeyer-Mueller *et al*., 2009) and various organizational behavior constructs within four retail industry companies in northeastern Colombia. Through the application of two distinct structural equation models –one 'original' and one 'inverse'– our primary objective was to validate the observed correlations. Surprisingly, the study revealed that most of the hypothesized associations are non-reciprocal. While the original model emphasizes the consequential role of core self-evaluation only in relation to motivation and job satisfaction, the inverse model substantiates the antecedent impact of core self-evaluation on all assessed constructs.

Our initial findings align with Deci *et al.* (2020), who highlighted the crucial relationship between motivation and job satisfaction in enhancing work performance. Similarly, Rheinberg and Vollmeyer (2018) and Pujol-Cols and Dabos (2018) corroborate this relationship, emphasizing that motivated and satisfied employees tend to accomplish more and better work-related objectives. While these studies predominantly address the global concept of 'work performance' (encompassing both objective and subjective dimensions), our research focuses on a purely subjective analysis from the employee's perspective, specifically through the lens of 'Core Self-Evaluation'. This specificity adds a more individual and intimate dimension to the analysis, highlighting the importance of self-confidence and its impact on organizational outcomes. This focus on subjective perceptions is crucial, as it can have significant implications for organizational results in the short, medium, and long term.

Contrary to our hypotheses, our data did not support the hypothesized connection between happiness and work performance (*H1*). Similarly, *H4* and *H5* were rejected, challenging the conventional wisdom and some relevant contributions (e.g., Mercurio, 2015; Vogel and Feldman, 2009), which vehemently suggest that employee's happiness and work commitment directly influence their self-evaluation of work performance. These findings are in line with some recent studies which suggest that the direct impact of happiness on work performance may be less significant than previously thought (Lin *et al.*, 2022).

The study effectively validates hypotheses linking motivation and job satisfaction with core self-evaluation. It emphasizes that a motivated and satisfied workforce is likely to perceive their performance positively. However, the lack of evidence for other hypotheses highlights the need for caution, recognizing the potential influence of unexplored variables. This aligns with the findings of Johnson *et al.* (2016), who suggested that while motivation and job satisfaction are crucial, other factors like organizational support, employee-company identification and leadership style might also play significant roles.

The validation of all formulated hypotheses in the inverse model aligns with Gabini (2018) and Yazdanshenas (2021)'s assertions, enriching our understanding of the reciprocal relationship between work performance and an individual's self-evaluation in terms of their organizational reality. This contribution significantly advances the field of organizational behavior, portraying work performance as a stronger antecedent and

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

activating variable than merely a resultant variable. This perspective is further supported by Chang *et al.* (2012), who argue that the interplay between self-evaluation and work outcomes may be complex and bidirectional.

Similarly, other studies provide evidence that CSE can be influenced by organizational constructs such as organizational support, socialization tactics, and work-family balance, among others. For instance, Ding *et al.* (2020) found that perceived organizational support for strengths use mediates the relationship between CSE and job performance, suggesting that supportive environments enhance the positive effects of CSE on performance. Song *et al.* (2015) highlighted the role of organizational socialization tactics in moderating the effects of CSE on job satisfaction and engagement, emphasizing the importance of structured onboarding processes. Katou (2021) demonstrated that work-family balance mediates the relationship between CSE and organizational performance, underlining the significance of work-life integration. Kammeyer-Mueller (2009) and Yazdanshenas (2021) further corroborate these findings by showing that CSE is not only an outcome but also a predictor of various job-related attitudes and behaviors, depending on the organizational context and support systems in place.

The practical implications for human resource management are substantial, offering insights into factors influencing and influenced by core self-evaluation. The study provides guidance for management in resource allocation and strategic efforts to enhance employee performance, with a particular emphasis on the centrality of performance appraisal and feedback. Acknowledging the study's limitations, notably its focus on four companies within a single industry and its cross-sectional design, the results underscore the importance of considering these factors in organizational decision-making within a specific context.

Furthermore, within the dynamic context of the retail industry, where employees serve as the direct link between the organization and its customers, our findings hold particular relevance. The symbiotic relationship between employee's reality and customer satisfaction is a well-established phenomenon in retail (Moss, 2021; Park *et al.*, 2021). Content and motivated employees, as identified through the positive correlations with core self-evaluation, are not only essential for internal organizational dynamics but also play a decisive role in shaping the external perception of the brand. Engaged and satisfied employees contribute to a positive customer experience, fostering loyalty and influencing purchasing behaviors. Our study sheds light on the intricate connections within this relationship, emphasizing that the perception of work performance is not only an internal metric but a key determinant of the overall customer-facing facet of these retail businesses. This reinforces the strategic importance of understanding and enhancing employee satisfaction, not only for internal organizational dynamics but as a critical factor influencing customer satisfaction in the competitive retail landscape.

The study's limitations should be taken into account when interpreting the results. Extending the sample to diverse organizations, industries, and geographic contexts, utilizing longitudinal or experimental designs, and employing multiple objective and subjective measures of work performance in future research can enhance the understanding of these intricate relationships.

The results obtained in this work underscore the pivotal role of core self-evaluation in both predicting and being influenced by key organizational variables, suggesting a complex, bidirectional relationship. This foundational understanding sets the stage for a deeper exploration and discussion of the implications, limitations, and potential future research directions in the subsequent sections. In conclusion, this study not only contributes valuable insights for management but also suggests that feedback based on performance evaluations can positively impact significant organizational perceptions and behaviors. Despite the study's contributions, future research should address the limitations mentioned before in order to broaden the applicability of the findings and further emphasize the critical role of feedback in shaping employees' perceptions and performance.

References

Bellet, C. S., De Neve, J. E. and Ward, G. (2023). Does employee happiness have an impact on productivity? *Management Science*. https://doi.org/10.1287/mnsc.2023.4766

Campbell, J. P. and Wiernik, B. M. (2015). The modeling and assessment of work performance. *Annual Review of Organizational Psychology and Organizational Behavior*, *2*(1), 47-74. https://doi.org/10.1146/annurev-orgpsych-032414-1114(28)

Chang, C.-H. (Daisy), Ferris, D. L., Johnson, R. E., Rosen, C. C. and Tan, J. A. (2012). Core self-evaluations: a review and evaluation of the literature. *Journal of Management*, *38*(1), 81-128. https://doi.org/10.1177/0149206311419661

Chiang-Vega, M., Hidalgo-Ortiz, J. P. and Gómez-Fuentealba, N. (2021). Effect of job satisfaction and confidence on the organizational climate, through structural equations. *Retos: Revista de Ciencias de la Administración y Economía*, *11*(22), 339-352. https://doi.org/10.17163/ret.n22.2021.10

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. En G. A. Marcoulides (ed.), *Modern Methods for Business Research* (pp. 295-336). Lawrence Erlbaum Associates.

Deci, E. L., Olafsen, A. H. and Ryan, R. M. (2017). Self-determination theory in work organizations: the state of a science. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*, 19-43. https://doi.org/10.1146/annurev-orgpsych-032516-113108

Ding, H., Yu, E. and Li, Y. (2020). Core self-evaluation, perceived organizational support for strengths use and job performance: Testing a mediation model. *Current Psychology*, *41*, 5143-5150. https://doi.org/10.1007/s12144-020-01029-z

Downes, P. E., Crawford, E. R., Seibert, S. E., Stoverink, A. C. and Campbell, E. M. (2021). Referents or role models? The self-efficacy and job performance effects of perceiving higher performing peers. *Journal of Applied Psychology*, *106*(3), 422-438. https://doi.org/10.1037/apl0000519

Dunning, D., Johnson, K., Ehrlinger, J. and Kruger, J. (2003). Why people fail to recognize their own incompetence. *Current Directions in Psychological Science*, *12*(3), 83-87. https://doi.org/10.1111/1467-8721.01235

Fornell, C. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39. https://doi.org/10.2307/3151312

Gabini, S. M. (2018). *Potenciales predictores del rendimiento laboral: una exploración empírica* (Doctoral Dissertation, Universidad Nacional de la Plata). https://doi.org/10.35537/10915/65394

Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., van den Broeck, A., Aspeli, A. K., Bellerose, J., Benabou, C., Chemolli, E., Güntert, S. T., Halvari, H., Indiyastuti, D. L., Johnson, P. A., Molstad, M. H., Naudin, M., Ndao, A., Olafsen, A. H., Roussel, P., Wang, Z. and Westbye, C. (2015). The multidimensional work motivation scale: validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology*, *24*(2), 178-196. https://doi.org/10.1080/1359432X.2013.877892

Ghaffari, S., Shah, I., Burgoyne, J., Nazri, M. and Salleh, J. (2017). The influence of motivation on job performance: a case study at Universiti Technology Malaysia. *Australian Journal of Basic & Applied Sciences*, *11*(4), 92-99. https://bit.ly/3ZsM8nx

Guayacán, I. N., Zárate, A. L. and Contreras-Pacheco, O. E. (2022). Job satisfaction in the context of mandatory teleworking: An empirical study in the higher education sector. *Estudios Gerenciales*, *38*(163), 222-234. https://doi.org/10.18046/j.estger.2022.163.4994

Hair, J. F., Hult, G. T. M, Ringle, C. M. and Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2. Ed). SAGE Publications, Inc.

Inam, A., Ho, J. A., Sheikh, A. A., Shafqat, M. and Najam, U. (2023). How self-leadership enhances normative commitment and work performance by engaging people at work? *Current Psychology*, *42*(5), 3596-3609. https://doi.org/10.1007/s12144-021-01697-5

Johnson, R., Rosen, C., Chang, C. and Lin, S. (2016). Assessing the status of locus of control as an indicator of core self-evaluations. *Personality and Individual Differences*, *90*, 155-162. https://doi.org/10.1016/J.PAID.2015.11.002

Kammeyer-Mueller, J., Judge, T. and Scott, B. (2009). The role of core self-evaluations in the coping process. *The Journal of Applied Psychology*, *94*(1), 177-95. https://doi.org/10.1037/a0013214

Katou, A. (2021). Examining the mediating role of work-family balance in the core self-evaluations- organizational performance relationship: a multilevel study. *Employee Relations: The International Journal*. https://doi.org/10.1108/ER-06-2020-0265

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Kristof-Brown, A. (2015). Person-Environment Interaction. *Wiley Encyclopedia of Management*, 1-1. https://doi.org/10.1002/9781118785317.weom110212

Lepold, A., Tanzer, N., Bregenzer, A. and Jiménez, P. (2018). The efficient measurement of job satisfaction: Facet-items versus facet scales. *International Journal of Environmental Research and Public Health*, *15*(7), 1362. https://doi.org/10.3390/ijerph15071362

Lin, X., Luan, Y., Zhao, G., Zhao, T. and Ding, H. (2022). Core Self-Evaluations Increases Among Chinese Employees: A Cross-Temporal Meta-Analysis, 2010-2019. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.770249

Mercurio, Z. A. (2015). Affective commitment as a core essence of organizational commitment: an integrative literature review. *Human Resource Development Review*, *14*(4), 389-414. https://doi.org/10.1177/15344843156036

Moss, C. J. (2021). *Mentoring strategies to enhance employee engagement in the retail industry* (Doctoral dissertation, Walden University).

Oswald, A. J., Proto, E. and Sgroi, D. (2015). Happiness and productivity. *Journal of Labor Economics*, *33*(4), 789-822. https://doi.org/10.1086/681096

Park, J., Ahn, J., Hyun, H. and Rutherford, B. N. (2021). Examining antecedents of retail employees' propensity to leave, International. *Journal of Retail & Distribution Management*, *49*(6), 795-812. https://doi.org/10.1108/IJRDM-02-2019-0035

Prieto, F., Postigo, Á., Cuesta, M. and Muñiz, J. (2021). Work engagement: new scale for its measurement. *Revista Latinoamericana de Psicología*, *53*, 133-142. https://doi.org/10.14349/rlp.2021.v53.15

Pujol-Cols, L. J. and Dabos, G. E. (2018). Satisfacción laboral: una revisión de la literatura acerca de sus principales determinantes. *Estudios Gerenciales*, *34*(14-6), 3-18. https://doi.org/10.18046/j.estger.2018.146.2809

Ramírez, C., Perea, J. G. and Junco, J. G. (2019). La felicidad en el trabajo: Validación de una escala de medida. *Revista de Administração de Empresas*, *59*, 327-340. https://doi.org/10.1590/S0034-759020190503

Ramos, P. J., Barrada, J. R., Fernández, E. and Koopmans, L. (2019). Assessing job performance using brief self-report scales: The case of the individual work performance questionnaire. *Revista de Psicología del Trabajo y de las Organizaciones*, *35*(3), 195-205. https://doi.org/10.5093/jwop2019a21

Rheinberg, F. and Vollmeyer, R. (2018). *Motivation*.: Kohlhammer Verlag.

Ringle, C. M., Wende, S. and Becker, J. M. (2015). *SmartPLS 3*. SmartPLS GmbH, Boenningstedt. http://www.smartpls.com.

Saufi, R. A., Mansor, N. N., Kakar, A. S. and Singh, H. (2020). The mediating role of person-job fit between person-organisation fit and intention to leave the job: Empirical evidence from Pakistan. *Sustainability*, *12*(19), 8189. https://doi.org/10.3390/su12198189

Schaufeli, W. B., Salanova, M., González, V. and Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, *3*, 71-92. https://doi.org/10.1023/A:1015630930326

Schachter, H. L. (2010). Objective and subjective performance measures: a note on terminology. *Administration & Society*, *42*(5), 550-567. https://doi.org/10.1177/00953997103780

Song, Z., Chon, K., Ding, G. and Gu, C. (2015). Impact of organizational socialization tactics on newcomer job satisfaction and engagement: Core self-evaluations as moderators. *International Journal of Hospitality Management*, 46, 180-189. https://doi.org/10.1016/J.IJHM.2015.02.006

Su, W., Yuan, S. and Qi, Q. (2022). Different effects of supervisor positive and negative feedback on subordinate in-role and extra-role performance: the moderating role of regulatory focus. *Frontiers in Psychology*, *12*, 757687. https://doi.org/10.3389/FPSYG.2021.757687

Vogel, R. M. and Feldman, D. C. (2009). Integrating the levels of person-environment fit: The roles of vocational fit and group fit. *Journal of Vocational Behavior*, *75*(1), 68-81. https://doi.org/10.1016/j.jvb.2009.03.007.

Wright, B. E. and Davis, B. S. (2003). Job satisfaction in the public sector: The role of the work environment. *American Review of Public Administration*, *33*(1), 70-90. https://doi.org/10.1177/0275074002250254

Yazdanshenas, M. (2021). Core self-evaluations and project managers' competencies: The moderating role of cultural intelligence. *Journal of Management Development*, *40*(6), 542-573. https://doi.org/10.1108/JMD-01-2021-0031

Zelenski, J. M., Murphy, S. A. and Jenkins, D. A. (2008). The happy-productive worker thesis revisited. *Journal of Happiness Studies*, *9*(4), 521-537. https://doi.org/10.1007/s10902-008-9087-4

Retos
Revista de Ciencias de Administración y Economía

october 2024-march 2025
pp. 331-342
https://doi.org/10.17163/ret.n28.2024.10

Financial anxiety in Mexican corporate government: effect of self-efficacy and neuroticism

Ansiedad financiera en el gobierno corporativo mexicano: efecto de la autoeficacia y neuroticismo

Alfredo Nava-Govela
Professor at Universidad Anáhuac, Mexico
alfredo.nava@anahuac.mx
https://orcid.org/0009-0008-1079-0946

Jaime H. Beltrán-Godoy
Professor at Universidad Anáhuac, Mexico
jaime.beltrang@anahuac.mx
https://orcid.org/0000-0001-5560-5451

Leovardo Mata-Mata
Professor at Universidad Anáhuac, Mexico
leovardo.mata@anahuac.mx
http://orcid.org/0000-0003-4713-5116

Received on: 11/06/24 **Revised on:** 10/07/24 **Approved on:** 28/08/2024 **Published on:** 01/10/24

Abstract: financial anxiety affects board members in their judgment concerning strategic decisions for their organizations. Both, financial self-efficacy and neuroticism bear on the financial anxiety of board members. By applying a structural equation model, this paper analyzes the effect of both factors on the financial anxiety of board members in public, private, and non-profit corporations in Mexico. The approach of the structural equation model is quantitative, non-experimental, and cross-sectional; and is based on a sample of 155 board members of Mexican institutions. The results show that financial self-efficacy affects negatively financial anxiety; whereas higher degrees of neuroticism affect positively financial anxiety. Following these results, it is advisable to consider these personality traits as relevant criteria for the selection of board members in Mexican institutions. Corporate governance policies and practices should also be developed to ameliorate the effect of neuroticism and incentivize the effect of financial self-efficacy in the judgments of board members regarding organizational strategy. The methodology of this study is useful for boards in institutions of other countries.

Palabras: financial anxiety, financial self-efficacy, personality traits, corporate directors, behavioral finance.

Resumen: la ansiedad financiera en la toma de decisiones de los consejeros de administración es importante para el posicionamiento estratégico de las organizaciones. El objetivo de este trabajo consiste en analizar el efecto de la autoeficacia financiera y el neuroticismo en la ansiedad financiera de los consejeros de administración de empresas, ya sean públicas o privadas, sin fines de lucro y fundaciones en México, ya que son personas clave en el diseño y la implementación de la estrategia organizacional. Se utiliza un modelo de ecuaciones estructurales para estudiar el efecto de la autoeficacia financiera y el neuroticismo de los consejeros en su ansiedad financiera bajo un enfoque cuantitativo, no experimental y de corte transversal. La muestra bajo estudio consiste en 155 consejeros. Los resultados permiten afirmar que la autoeficacia financiera influye de manera negativa en la ansiedad financiera, en tanto que el neuroticismo se relaciona de manera positiva con la ansiedad financiera. Los resultados permiten diseñar e implementar estrategias de gobierno corporativo que consideren los rasgos personales de quienes integran los consejos de administración, lo cual permitirá optimizar los beneficios de la correcta selección de los integrantes de la alta dirección de las organizaciones mexicanas. Se recomienda extender este estudio a otras culturas u otros niveles organizacionales.

Palabras claves: ansiedad financiera, autoeficacia financiera, rasgos de personalidad, consejeros de administración, comportamiento financiero.

Suggested citation: Nava-Govela, A., Beltrán-Godoy, J. H. and Mata-Mata, L. (2024). Financial anxiety in Mexican corporate government: effect of self-efficacy and neuroticism. *Retos Revista de Ciencias de la Administración y Economía, 14*(28), 331-342. https://doi.org/10.17163/ret.n28.2024.10

Introduction

The members of the board of directors are key in the design, implementation and monitoring of the organization's strategy. There is a great interest in the academic literature to study the relationship between the boards of directors and the corporate strategy. The directors, help the organization's positioning in competitive markets (Bezemer *et al.*, 2023). Good corporate governance has positive implications for the longevity of family-owned enterprises (Fahed-Sreih, 2009) and a positive impact on the performance of public company stocks (Shank *et al.*, 2013).

Much of the corporate governance literature focuses on the structure, composition, and functioning of the board of directors. Managing directors are a central element of corporate governance, as they are responsible for the accountability of the organization's performance to shareholders, however, little has been studied about the personal characteristics of directors, which have a positive effect on the quality of corporate governance of organizations (Charitou *et al.*, 2016). According to Pérez-Martínez and Rodríguez-Fernández (2022), judgments and human assessments and decisions have consequences on the results of companies, so it is important to study the counselor as a decision-maker under the principle of limited rationality.

The financial anxiety of board members is affected by their financial self-efficacy, which is a symbol of resilience and continuous improvement over time. High financial self-efficacy allows learning and implementing financial strategies that improve the financial stability of the person (Lone and Bhat, 2024) and by their neuroticism, which is a personality trait that is accompanied by emotional instability and is associated with financial dissatisfaction (Fachrudin *et al*., 2022).

The relationship between financial self-efficacy and financial anxiety has been studied by Dickson and Mulligan (2023) who argue that financial self-efficacy mitigates the financial anxiety of people with liabilities. On the other hand, the relationship between neuroticism and anxiety has been addressed by several authors, among which Vinograd *et al.* (2020) who state that individuals with high levels of neuroticism tend to have high levels of anxiety. However, a review of the academic literature found no publications that have studied the relationship between financial self-efficacy and neuroticism with financial anxiety among board members.

A survey of 155 board members of Mexican organizations analyzes the relationship between their financial self-efficacy, neuroticism and financial anxiety. This research contributes to the understanding of how directors make decisions and the effect on their personal finances. Next, the different theoretical perspectives of the variables financial self-efficacy, neuroticism and financial anxiety are reviewed in order to establish the theoretical perspective under which the variables of interest will be studied.

Financial self-efficacy

Self-efficacy is a person's self-conception about their ability to carry out an activity. If a person has a high expectation of self-efficacy, then he/she will be more motivated and more likely to start an activity and to devote much more time to perfecting the activity, and therefore more likely to achieve the goal set (Bandura and Locke, 2003). It can be said that individuals with high self-efficacy manage to generate positive spirals in which high efficacy leads to goals being set and to high motivation and forces the person to overcome (Huerta-Soto *et al.*, 2023).

Particularly financial self-efficacy is the self-conception of the person to make decisions in personal finance; a high financial self-efficacy in women leads to better financial decisions (Farrell *et al.*, 2016). Likewise, people with lower financial self-efficacy are more likely to build investment portfolios with lower risk and, therefore, with lower long-term return (Montford and Goldsmith, 2015).

Financial anxiety

Financial anxiety was defined by Archuleta *et al.* (2013) as the feeling of anxiety or worry about personal financial situation. According to Gicnac *et al.* (2023), financial anxiety is associated with a lack of financial education and poor money management habits. The most used measurement

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

instrument in the academic literature to evaluate financial anxiety is the one proposed by Archuleta *et al.* (2013), which makes a subjective measurement, based on the self-assessment that an individual makes regarding his level of financial anxiety.

The relationship between anxiety and financial self-efficacy has been studied by several authors, among which Craske (2021) stands out, who affirms that a perception of positive self-efficacy accompanied by the setting of personal goals strengthens motivation and performance In an intellectual fencing with detractors of this position Ekinci and Koç (2023) defend that a perception of high self-efficacy does not have an effect of overconfidence and low performance, but on the contrary, helps people stay motivated when carrying out an activity, reducing levels of anxiety and stress.

Sánchez Anguita *et al.* (2018) find that workers in hospitals with high levels of self-efficacy in personal (social) relationships reduce their exposure to anxiety, and vice versa, workers with high levels of anxiety are perceived with lower self-efficacy. Lartey *et al.* (2023) provide a study on nurses in leadership positions, finding that those with high self-efficacy tend to maintain their positions, gain confidence over time, and aspire to higher positions. Given the shortage of nursing leaders, they suggest that strengthening their self-efficacy is crucial.

Studies on the relationship of financial anxiety and self-efficacy can be found in the academic literature. The relationship between anxiety and self-efficacy suggests that personal finance courses should be offered as an effective method to improve self-efficacy (Rudi *et al.*, 2020). Likewise, Lee *et al.* (2023) affirm that the relationship between financial education and anxiety is moderated by levels of financial self-efficacy, so as financial self-efficacy increases, financial education will decrease the level of financial anxiety.

Neuroticism

Neuroticism is one of the elements that make up the model of the five personality traits. The five major personality traits in their most basic dimensions of human personality structure determine the characteristics of human thought, feeling, and behavior (Novikova *et al.*, 2023). Neuroticism comes from the three dimensions proposed by Eysenck and is also known as emotional stability, i.e., it is the tendency to experience frequent and intense negative emotions associated with a sense of lack of control in response to stress.

In the academic literature, several studies have been carried out to investigate the relationship between neuroticism and financial behavior variables. Ng and Kang (2021) studied the relationship between financial satisfaction, neuroticism and subjective well-being, confirming that there is a negative relationship between neuroticism and subjective well-being. Nyhus and Webley (2001) studied the effect of personality on saving habits, finding that emotional stability is associated with saving decisions so, in the negative relationship between saving and emotional stability, high levels of neuroticism will have low levels of saving.

The relationship between risk aversion and personality traits was studied by Borghans *et al.* (2009), who found that risk aversion has a positive relationship with people with high level of neuroticism, who at the same time will have a high level of risk aversion. Several authors, such as Aidt and Rauh (2018) have studied the stability of personality traits, concluding that they are stable over long periods of time and that they are predictors of relevant events in life, such as functional problems in the family and work environment.

Although the relationship between financial behavior variables such as risk aversion, debt decisions, and investment has been studied, no evidence was found in the academic literature regarding the study of the relationship between financial anxiety and personality traits. According to Okoye (2013), it is important for companies to develop processes that identify risks associated with behavioral problems as part of their corporate governance processes. The argument they make regarding personality dimensions in corporate governance is that risks must be recognized and managed, as personality has a positive impact on behavioral processes.

Materials and methods

This study is quantitative, with a non-experimental and transversal design using a methodological design similar to that proposed by Cueva *et al.* (2021) to study the relationships between variables from responses in Likert scale obtained through a survey. The constructs financial anxiety (FA), neuroticism (NEU) and self-efficacy (SE) are one-dimensional and follow the structure presented in Archuleta *et al*. (2013), Toledo-Fernández *et al.* (2022) and Lown (2011), respectively. It is worth mentioning that the corresponding items were reviewed in consensus with an expert judgment in order to draw on the specialized knowledge and experience in this subject from an informed and professional perspective.

Specifically, the FA variable consisted of seven items where the person rates their reaction on the Likert scale to: "Almost never (1)", "Occasionally (2)", "Sometimes (3)", "Normally (4)", "Very often (5)" and "Many times (6)" (see table 1).

Table 1
Financial Anxiety

Items	Financial Anxiety
FA1	I feel anxious about my financial situation.
FA2	I have difficulty sleeping because of my financial situation.
FA3	I really enjoy doing my job.
FA4	I get irritated because of my financial situation.
FA5	I have difficulty controlling my concern about my financial situation.
FA6	I have muscle tension because of my financial situation.
FA7	I feel fatigued because of the concern of my financial situation.

The FA variable consists of six items where the person answered "Completely False (1)", "False (2)", "True (3)" and "Completely True (4)" to six statements (see table 2).

Table 2
Financial self-efficacy

Items	Financial self-efficacy
SE1	It is difficult to stick to the spending budget when unexpected spending arises.
SE2	It is challenging to progress towards my financial goals.
SE3	When unexpected expenses occur, I usually have to use credit.
SE4	When I face a financial challenge, I have a hard time finding a solution.
SE5	I lack confidence in my ability to manage my finances.
SE6	I'm worried that when I retire, I'll run out of money.

The neuroticism variable is constructed by considering three items of the instrument developed by (Toledo *et al*., 2022) to measure personality traits, where "Strongly disagree (1)", "little disagree (2)", "Neither agree nor disagree (3)", "A little agreement (4)" and "Strongly agree (5)" are answered to a sequence of statements that complete the phrase "I am a person…" (see table 3). It is appropriate to comment that the construct of this variable is not generated by Factorial Analysis but is constructed based on the weights established by the authors, hence it is not presented in the estimates of table 4. However, Soto and John (2017) report that the neuroticism variable presents a strong internal consistency, 0.900 or higher.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Table 3
Neuroticism

Items	Neuroticism	Weighting
NEU1	Fascinated by art, music or literature.	1/3
NEU2	With little interest in abstract ideas.	1/3
NEU3	Original, which brings new ideas.	1/3

Based on the above constructs, a randomized sample pilot test was carried out in a population of graduate students at Universidad Anáhuac México. Students surveyed are active students within the university and who belong to the economically active population. In this regard, using the finite sampling formula with a 95 % confidence level, a population of 700 pupils and a margin of error equal to 8 %, a sample size equal to 124 people is obtained. The resulting sample size was 177 students, which corresponds appropriately to the calculated sample size.

Table 4 presents the results of the exploratory and confirmatory factor analysis of the pilot test. The factors considered are those whose eigenvalue is greater than one, which account for 80.70 % of the variation of the data in the sample and whose internal consistency, measured by the a-Cronbach coefficient is greater than 0.80 (Croasmun and Ostrom, 2011).

Table 4
Factor analysis of the pilot test

Factors	Eigenvalue	Cumulative variation	a-Cronbach
Factor1	5.305	0.442	0.904
Factor2	1.540	0.208	0.807
Rest	<1	0.350	

Table 5
Confirmatory factor analysis

Item	Factor 1	Factor 2
FA1	0.614	
FA2	0.800	
FA3	0.845	
FA4	0.833	
FA5	0.819	
FA6	0.864	
FA7		
SE1		0.871
SE2		0.845
SE3		0.511
SE4		0.728
SE5		0.832
SE6		0.497

In relation to the Barlett sphericity test, the null hypothesis (1024.765, p-value <0,05) is rejected under 95% confidence, indicating that the matrix of correlations between the different items is significantly different from an identity matrix, and ratifying the relevance of factor analysis. In this sense, based on the results of the pilot test, it is decided to use the instruments of neuroticism, self-efficacy and financial anxiety to evaluate the relationship between the variables in the population of management counselors.

The instruments identified were applied to a sample of board members. In this regard, the population size is uncertain or very large, suggesting the use of infinite sampling (see Mendenhall *et al.*, 2006). Under this approach a sample size of 150 people is obtained. However, it is known that the 50 most relevant companies in Mexico have 605 counseling positions (Meza, 2023). If this value is taken as the minimum bound for the number of possible advisors within the population and the finite sampling formula with a 95 % confidence level and a margin of error equal to 8 % is used, a sample size equal to 100 people is obtained. In other words, the sample size under these thresholds ranges from 100 to 150 people. Therefore, in this work the sample used consists of 155 management advisors, a figure according to the estimated sample sizes.

However, the sampling process is carried out for convenience using a platform specifically designed for online survey collection. The procedure used to verify research hypotheses is factor analysis and structural equations. The method of exploratory factor analysis groups a set of items into factors, which seek to approximate one or more latent variables. This is achieved because the estimated coefficients capture the degree of correlation and interdependence between items such that they can be grouped into different subsets. Within each subset we have, then, the necessary items and the factor loads required to operationalize the respective latent variable and approximate its behavior through the sample data (Hair *et al.*, 2014).

In matrix terms, the factor analysis method estimates a set of composite variables, called factors, as a linear combination of items. This linear combination is achieved by maximizing the common variance between the available sample items. In order to assess the suitability of the estimated factors in relation to the items used and excluded from the sample information set, various hypothesis tests are conducted.

The classical goodness-of-fit indicators are the likelihood ratio, the mean quadratic root of approximation error (RMSEA), the comparative goodness-of-fit index (CFI), the Tucker-Lewis index (TLI), and the mean quadratic root of standardized approximation error (SRMR.) (Acock, 2013). The thresholds that determine a reasonable fit for a SEM model are that the test statistic (Rojas-Torres, 2020), that the CFI and TLI values are greater than 0.80 (Hair *et al.*, 2021), that the magnitude of RMSEA is less than 0.08 (Hair *et al.*, 2021) and that the level of SRMR. is less than 0.10 (Shi *et al.*, 2019).

In this work, a structural equations model (SEM) was implemented to evaluate the relationships between the variables of financial self-efficacy, financial anxiety and neuroticism within a common theoretical framework. The estimation of this SEM model was made by maximum likelihood with robust standard White errors (Acock, 2013). In matrix terms, the structural equation model can be described as a system of equations of the form:

$$X = AX + \Theta\varepsilon + \epsilon$$

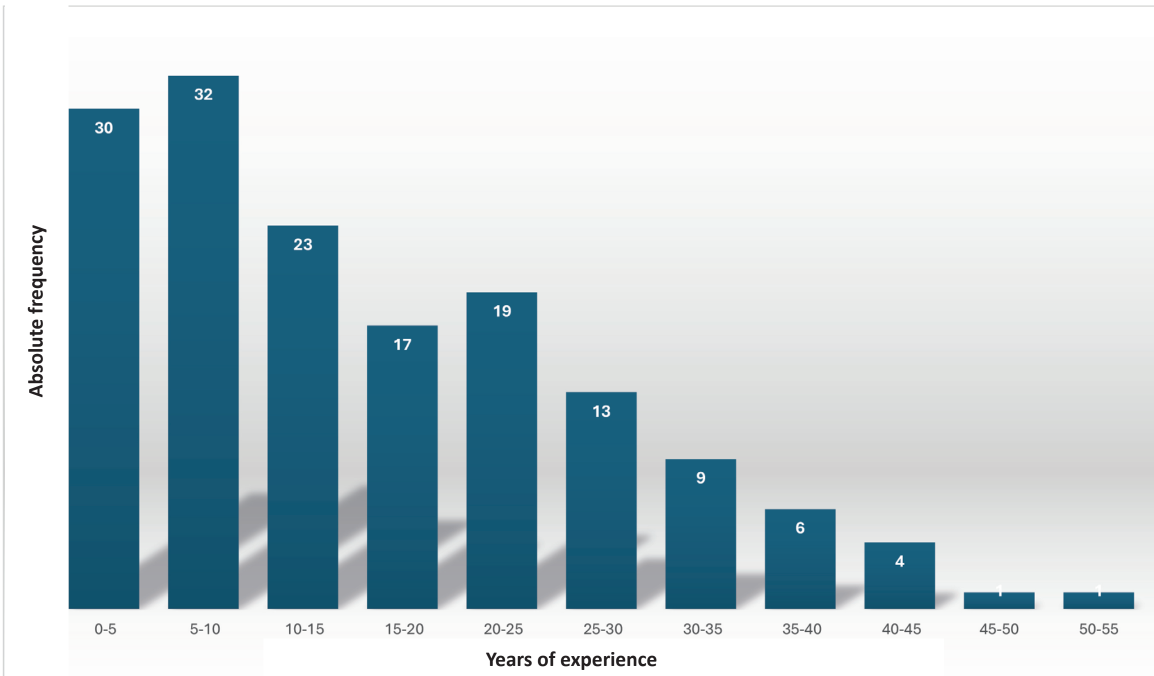
Where X is a vector $m\times1$ of endogenous latent variables, ε is a vector $n\times1$ of exogenous latent variables, A is a matrix of coefficients m×m that measure the effects of endogenous Θ latent variables is a size m×n matrix of coefficients that capture the effects between ε and A, being ϵ the stochastic term (Acock, 2013).

A descriptive analysis of the final sample is now presented. The information set was composed of people who reported participating in some type of board of directors, whether public or private, non-profit and foundations. In the study sample there are 90 % men and 10 % women, where the average age is 57.64 years, being that the average of women is 55.73 years and the average of men is 57.84 years. 72.26 % of the counselors in the sample collected reported having postgraduate studies, either specialty, master's or doctoral. The rest of

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

the people, 28.74 %, have a bachelor's degree. The experience of participation in boards of directors of the sample under analysis is significant, since they reported having 16.55 years of experience on average. However, there is a bias to the right given that mode is between five and ten years, which is offset by few counselors reporting more than 30 years of experience on the right tail of the histogram.

Figure 1



The exploratory data analysis that has been presented is an overview of the sample of information that is used in the following section for inferential estimates.

Resultados y discusiones

The results of this work are presented below. The set of estimates begins with the Kaiser-Meyer-Olkin (KMO) sample adequacy measure in Table 6. This indicator presents a value of 0.863 for items that make up financial anxiety and a magnitude of 0.828 for the financial self-efficacy factor. These values are above the threshold of 0.80 meritorious calibration (Woods and Edwards, 2007) for such constructs. In relation to Cronbach's Alpha coefficient, it was found that financial anxiety has a level of 0.901, while financial self-efficacy has a value of 0.860. In this case, according to the goodness of fit thresholds above 0.80 (Shrestha, 2021) a good and acceptable internal consistency is achieved, respectively (see table 6).

Table 6

KMO and a-Cronbach

Latent variable	α-Cronbach	KMO
Financial Anxiety	0.901	0.863
Financial self-efficacy	0.860	0.828

On the other hand, the statistic corresponding to the Bartlett test has a value of 1087.80 with a p-value less than 1%. Hence, the null hypothesis is rejected and there is evidence to affirm that the items present a significant correlation to generate the constructs associated with the latent variables. Moreover, the Exploratory Factor Analysis procedure (Hassan Kariri *et al.*, 2023) identified two significant factors that account for just over 95 % of the total variance of items used under a correlation matrix determinant of less than 0.001 (see Table 7).

In the case of the neuroticism variable it reaches an internal consistency of 0.900, according to the items and validation of the instrument presented by (Soto and John, 2017).

Table 7
Exploratory factor analysis

Factors	Eigenvalue	Cumulative variation
Factor1	5.153	0.717
Factor2	1.704	0.955
Rest	<1	0.045

Considering the two estimated factors of table 8, the Confirmatory Factor Analysis procedure was carried out, seeking the significance of the items according to the latent variables of financial anxiety and self-efficacy. Specifically, factor loads group items according to expected constructs under a robust threshold of 0.40 (Shrestha, 2021) (see table 8).

Table 8
Confirmatory factor analysis

Item	Factor 1	Factor 2
FA1	0.601	
FA2	0.768	
FA3	0.793	
FA4	0.821	
FA5	0.743	
FA6	0.484	
FA7	0.656	
SE1		0.506
SE2		0.549
SE3		0.470
SE4		0.734
SE5		0.713
SE6		0.619

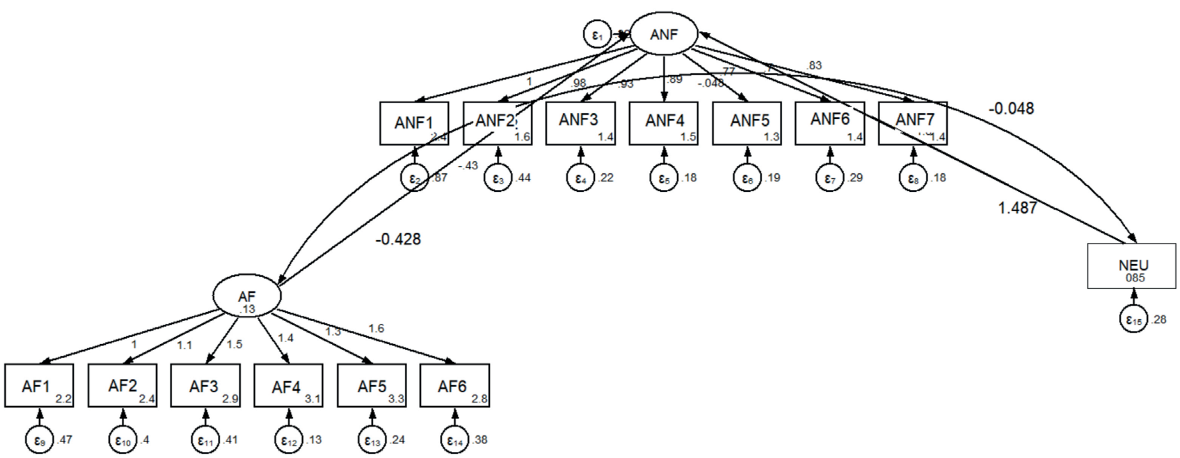
A model of structural equations was estimated based on the factors found (see table 9), where an inverse relationship between financial self-efficacy (-0.428, p-value < 1 %) and positive between the neuroticism and financial anxiety variable (1.487, p-value <1 %) is confirmed. There is also a negative association (-0.048, p<1 %) between neuroticism and financial self-efficacy.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Table 9
SEM model

Dependent variable	Independent variables	Coefficient	Robust standard error	Statistic z	p-value
Financial anxiety <-					
	Financial self-efficacy	-0.428	0.017	-25.00	0.000
	Neuroticism	1.487	0.089	16.68	0.000
Cov (Financial self-efficacy, Neuroticism)		-0.048	0.006	-8.57	0.000

Figure 2
Structural Equations Model



It is important to underline that the constructs of financial anxiety (FA) and financial self-efficacy (SE) show acceptable internal consistency according to Cronbach's Alpha indicator (Croasmun and Ostrom, 2011). In this sense, the neuroticism variable also presents a strong internal consistency (0.900) as discussed in Soto and John (2017).

It is important to comment that the coefficients of the SEM model were estimated weighting by gender, i.e., standard errors of estimated coefficients consider the differences in the dependent variable for men and women. In this respect, the Levene test rejects the null hypothesis and it can be stated that there are differences by sex in the construct of financial anxiety (W = 3.936, p value <1 %).

Regarding the goodness of adjustment of the structural equations model, it is obtained that the CFI and TLI indicators are above the 0.80 threshold. The RMSEA indicator is less than 0.10 and the SRMR. statistic <0.08. In addition, the likelihood ratio test statistic is below the critical value five. These results provide evidence that the adjustment of the sample covariance matrix under the SEM model structure is in line with the theoretical relationships of the latent variables (Shrestha, 2021; Acock, 2013).

From the estimates obtained by the SEM model in the Stata 14 software, the relationship between the variables neuroticism and financial self-efficacy with the dependent variable financial anxiety is verified. These results allow companies to better structure the design of their boards of directors and manage their risk, since as Amin *et al.* (2021) states, corporate governance has a positive impact on the financial performance of companies. The findings of this research show that counselors with high levels of financial self-efficacy manage to reduce their anxiety levels, which implies that it will be easier for counselors with high financial self-efficacy to strengthen their stability capacity.

On the other hand, this research argues that neuroticism has a positive effect on the financial anxiety of directors, which is consistent with the research of several authors, including: (1) Paulus *et al.* (2016) who argue that neuroticism manifests itself as anxiety when there are situations of shame, psychological rigidity and/or lack of emotional control; for their part, (2) Shin *et al.* (2023) studied the relationship between perfectionism and neuroticism and anxiety, finding a positive correlation between neuroticism and anxiety, and; finally, (3) Ikizer *et al.* (2022 asked patients diagnosed with anxiety to perform NEO personality tests, concluding that there is a positive relationship between anxiety levels and neuroticism.

Conclusions

The results of this research contribute to the study of managerial biases and their implications for company results according to Guenzel and Malmendier (2021). Since the mid-2000s, this branch of behavioral corporate finance has provided theoretical and empirical evidence on the influence of biases on the corporate realm. The field has been a leading force in dismantling the argument that traditional economic mechanisms (selection, learning, and market discipline) would be sufficient to sustain the rational manager paradigm.

The results of this research lead to relevant corporate governance implications. It is recommended that those responsible for corporate governance of companies consider personality traits, as well as financial self-efficacy when planning their board of directors in order to optimize the competencies of senior management and improve the results of the company and establish programs that strengthen the self-efficacy of people with high levels of financial anxiety.

Among the most relevant limitations of this research is the resistance to answer the measurement instrument applied to the population through an online survey, since the directors of the companies are exposed to information requirements by multiple channels and are reluctant to share information.

As future lines of research, it is proposed to replicate the study considering the effect of alexithymia in the context of decision-making under levels of uncertainty to which members of the board of companies are subjected following the proposal of Molins and Serrano (2023), since alexithymia has a negative relationship with loss aversion and therefore an increase in alexithymia levels could reduce levels of financial anxiety.

Likewise, it is recommended to conduct this study to other cultures and/or levels of the organization in order to extend the results and make comparisons, following the proposal of Rocha (2024) who found a significant relationship between certain cultural dimensions (specifically, masculinity, distance of power, individualism and avoidance of uncertainty) and the five main personality traits, which vary between countries with different cultures.

References

Acock, A. C. (2013). *Discovering structural equation modeling using Stata.* Stata Press Books.

Aidt, T. and Rauh, C. (2018). The Big Five personality traits and partisanship in England. *Electoral Studies, 54*, 1-21. https://doi.org/10.1016/j.electstud.2018.04.017

Amin, Q. A. and Farquhar, S. S. (2021). The relationship between corporate governance and firm financial performance: an empirical investigation of an emerging market. International *Journal of Business Governance and Ethics, 15*(2), 215-232. https://doi.org/10.1504/IJBGE.2021.113940

Archuleta, K. L., Dale, A. and Spann, S. M. (2013). College students and financial distress: Exploring debt, financial satisfaction, and financial anxiety. *Journal of Financial Counseling and Planning, 24*(2), 50-62. https://bit.ly/4g3ggeU

Bandura, A. and Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of applied psychology, 88*(1), 87. https://doi.org/10.1037/0021-9010.88.1.87

Bezemer, P. J., Pugliese, A., Nicholson, G. and Zattoni, A. (2023). Toward a synthesis of the board-strategy relationship: A literature review and future research agenda. *Corporate Governance: an international review, 31*(1), 178-197. https://doi.org/https://doi.org/10.1111/corg.12481

Borghans, L., Heckman, J. J., Golsteyn, B. H. and Meijers, H. (2009). Gender differences in risk aversion and ambiguity aversion. *Journal of the European Economic Association, 7*(2-3), 649-658. https://doi.org/10.1162/JEEA.2009.7.2-3.649

Charitou, A., Georgiou, I. and Soteriou, A. C. (2016). Corporate governance, board composition, director expertise, and value: The case of qua-

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

lity excellence. *Multinational Finance Journal, 20*(3), 181-236. https://doi.org/10.17578/20-3-1

Cueva Estrada, J., Sumba Nacipucha, N., Duarte Duarte, W. (2021). Marketing de contenidos y decisión de compra de los consumidores Generación Z en Ecuador. *ECA Sinergia, 12*(2), 25-37. Universidad Técnica de Manabí Ecuador. https://doi.org/10.33936/eca_sinergia.v12i2.3459

Croasmun, J. T. and Ostrom, L. (2011). Using likert-type scales in the social sciences. *Journal of adult education, 40*(1), 19-22. https://bit.ly/4cQU0lr

Dickson, T. and Mulligan, E. P. (2023). "Financial anxiety, financial self-efficacy, and general social supports: Reliability of assessments". Preimpresión; no ha sido revisada por una revista.

Ekinci, N. and Koç, H. (2023). Grit, general self-efficacy, and life satisfaction: The mediating role of hope. *Journal of Community Psychology*, *51*(3), 1288-1299. https://doi.org/10.1002/jcop.22962

Fachrudin, K. A., Pirzada, K. e Iman, M. F. (2022). The role of financial behavior in mediating the influence of socioeconomic characteristics and neurotic personality traits on financial satisfaction. *Cogent Business & Management, 9*(1), 2080152. https://doi.org/10.1080/23311975.2022.2080152

Fahed-Sreih, J. (2009). An exploratory study on a new corporate governance mechanism. *Management Research News, 32*(1), 50-61. https://doi.org/10.1108/01409170910922023

Farrell, L., Fry, T. R. L. and Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behavior. *Journal of Economic Psychology, 54*, 85-99. https://doi.org/10.1016/j.joep.2015.07.001

Gicnac, G., Gerrans, P. and Andersen, C. (2023). Financial literacy mediates the effect between verbal intelligence and financial anxiety. *Personality and Individual Differences, 203*. https://doi.org/10.1016/j.paid.2022.112025

Guenzel, M. and Malmendier, U. (2020). *Behavioral corporate finance: The life cycle of a CEO career* (No. w27635). National Bureau of Economic Research.

Hair Jr., J. F., Sarstedt, M., Hopkins, L. and Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review, 26*(2), 106-121. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J. F. (2021). Reflections on SEM: An introspective, idiosyncratic journey to composite-based structural equation modeling. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems, 52*(SI), 101-113. https://doi.org/10.1145/3505639.3505646

Hassan Kariri, H. D., Edrees Somaili, H., Hadi Omair, A., Mansour, M. E.-S. I. and Radwan, O. A. (2023). The impact of psychological capital on job satisfaction among employees with individuals' social responsibility as a mediator. *SAGE Open, 13*(4). https://doi.org/10.1177/21582440231218263

Huerta-Soto, R., Ramírez-Asís, E., Norabuena Figueroa, R. and Valderrama Plasencia, L. (2023). Autoeficacia emprendedora y desempeño de micro y pequeñas empresas peruanas. *Revista Venezolana de Gerencia, 28*(102), 751-768. https://doi.org/10.52080/rvgluz.28.102.19

Ikizer, G., Kowal, M., Aldemir, İ. D., Jeftić, A., Memisoglu-Sanli, A., Najmussaqib, A., Lacko, D., Eichel, K., Turk, F., Chrona, S., Ahmed, O., Rasmussen, J., Kumaga, R., Uddin, M., Reynoso-Alcántara, V., Pankowski, D. and Coll-Martín, T. (2022). Big Five traits predict stress and loneliness during the COVID-19 pandemic: Evidence for the role of neuroticism. *Personality and individual differences, 190*, 111531. https://doi.org/10.1016/j.paid.2022.111531

Lartey, S. A., Montgomery, C. L., Olson, J. K. and Cummings, G. G. (2023). Leadership self-efficacy and nurses' aspiration to leadership: An evolutionary concept analysis. *International Journal of Nursing Studies, 143*, 104496. https://doi.org/10.1016/j.ijnurstu.2023.104496

Lee, J. M., Rabbani, A. and Heo, W. (2023). Examining financial anxiety focusing on interactions between financial knowledge and financial self-efficacy. *Journal of Financial Therapy, 14*(1), 2. https://doi.org/10.4148/1944-9771.1279

Lone, U. M. and Bhat, S. A. (2024). Impact of financial literacy on financial well-being: a mediational role of financial self-efficacy. *Journal of Financial Services Marketing, 29*(1), 122-137. https://doi.org/https://doi.org/10.1057/s41264-022-00183-8

Lown, J. M. (2011). Development and validation of a financial self-efficacy scale. *Journal of Financial Counseling and Planning, 22(*2), 54. https://doi.org/10.1891/1052-3073.30.1.142

Mendenhall, W., Scheaffer, R. L. and Lyman Ott, R. (2006). *Elementos de muestreo*. Ediciones Paraninfo, SA.

Meza, E. (2023, 4 de septiembre). Mujeres ocupan sólo el 12% de los consejos de administración de las empresas más relevantes de México. *El Economista, 10*. https://bit.ly/3T8gYgY

Molins, F. and Serrano, M. Á. (2023). La relación entre el distrés psicológico derivado del COVID-19 y la aversión a las pérdidas es modulada por el rasgo de alexitimia. *Retos Revista de Ciencias de la Administración y Economía, 13*(25), 35-47. https://doi.org/10.17163/ret.n25.2023.03

Montford, W. and Goldsmith, R. E. (2015). How gender and financial self-efficacy influence investment risk taking. *International Journal of Consumer Studies, 40*(1), 101-106. https://doi.org/10.1111/ijcs.12219

Novikova, I. A., Bychkova, P. A., Novikov, A. L. and Shlyakhta, D. A. (2022). Personality traits and academic motivation as predictors of attitudes towards digital educational technologies among Russian university students. *RUDN Journal of Psychology and Pedagogics, 19*(4), 689-716. https://doi.org/10.1007/978-3-030-93715-7_20

Nyhus, E. K. and Webley, P. (2001). The role of personality in household saving and borrowing behaviour. *European journal of personality, 15*(S1), S85-S103. https://doi.org/10.1002/per.422

Rojas-Torres, L. (2020). Robustez de los índices de ajuste del análisis factorial confirmatorio a los valores extremos. *Revista de matemática: teoría y aplicaciones, 27*(2), 383-404. https://doi.org/10.15517/rmta.v27i2.33677

Ng, W. and Kang, S. H. (2022). Predictors of well-being during the COVID-19 pandemic: The importance of financial satisfaction and neuroticism. *Journal of Community Psychology, 50*(7), 2771-2789. https://doi.org/10.1002/jcop.22795

Okoye, N. (2013). The personality of company directors and behavioural risks in corporate governance: bridging the unidentified gap. *International Journal of Disclosure and Governance, 10*, 261-286. https://doi.org/10.1057/jdg.2013.17

Paulus, D. J., Vanwoerden, S., Norton, P. J. and Sharp, C. (2016). From neuroticism to anxiety: Examining unique contributions of three transdiagnostic vulnerability factors. *Personality and Individual Differences, 94*, 38-43. https://doi.org/https://doi.org/10.1016/j.paid.2016.01.012

Pérez-Martínez, A. and Rodríguez-Fernández, A. (2022). Economía conductual: su influencia en la predicción de resultados deportivos. *Retos Revista de Ciencias de la Administración y Economía, 12*(23), 125-138. https://doi.org/10.17163/ret.n23.2022.08

Rocha, P. (2024). Cultural correlates of personality: a global perspective with insights from 22 nations. *Cross-Cultural Research, 0*(0). https://doi.org/10.1177/10693971241264363

Rudi, J. H., Serido, J. and Shim, S. (2020). Unidirectional and bidirectional relationships between financial parenting and financial self-efficacy: Does student loan status matter? *Journal of Family Psychology, 34*(8), 949. https://doi.org/10.1037/fam0000658

Sánchez-Anguita Muñoz, Á., Pulido López, M. F. and Conde Vieitez, J. (2018). Self-efficacy and anxiety in female hospital healthcare workers. *Ansiedad y Estrés, 24*(2-3), 99-104. https://doi.org/https://doi.org/10.1016/j.anyes.2018.08.002

Shin, J., Lee, H. J., Park, H., Hong, Y., Song, Y. K., Yoon, D. U. and Oh, S. (2023). Perfectionism, test anxiety, and neuroticism determines high academic performance: a cross-sectional study. *BMC psychology, 11*(1), 410. https://doi.org/10.1186/s40359-023-01369-y

Shank, T., Paul Hill, R. and Stang, J. (2013). Do investors benefit from good corporate governance? Corporate Governance: *The international journal of business in society, 13*(4), 384-396. https://doi.org/10.1108/CG-03-2010-0027

Shi, D., Lee, T. and Maydeu-Olivares, A. (2019). Understanding the model size effect on SEM fit indices. *Educational and psychological measurement, 79*(2), 310-334. https://doi.org/10.1177/0013164418783530

Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics, 9*(1), 4-11. https://doi.org/10.12691/ajams-9-1-2

Soto, C. J. and John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of personality and social psychology, 113*(1), 117. https://doi.org/10.1037/pspp0000096

Toledo-Fernández, A., Pérez-Matus, S. and Villalobos-Gallegos, L. (2022). The Big Five Inventory-2: Confirmatory factor analysis and latent profiles in a Mexican sample. *Suma Psicológica, 29*(2), 119-128. https://doi.org/10.14349/sumapsi.2022.v29.n2.4

Vinograd, M., Williams, A., Sun, M., Bobova, L., Wolitzky-Taylor, K. B., Vrshek-Schallhorn, S., Mineka, S., Zinbarg, R. E. and Craske, M. G. (2020). Neuroticism and Interpretive Bias as Risk Factors for Anxiety and Depression. *Clinical Psychological Science, 8*(4), 641-656. https://doi.org/10.1177/2167702620906145

Woods, C. M. and Edwards, M. C. (2007). 12 factor analysis and related methods. *Handbook of statistics, 27*, 367-394. https://doi.org/10.1016/S0169-7161(07)27012-9

Infographics

Vol. 14 Núm. 28
october 2024-march 2025
pp. 183-198

The trinomial commitment, satisfaction and organizational justice in the binomial happiness and turnover intention

Authors: Esthela Galván-Vela - Rafael Ravina-Ripoll - Mario Alberto Salazar-Altamirano - Deisy Milena Sorzano-Rodríguez

JUSTIFICATION

The aim of any institution of education is to provide students quality education that facilitates their integration into the labor market. To achieve this, it is essential that their human capital, i.e. teachers, work in an environment of happiness, trust, satisfaction and commitment. In countries with emerging economies like Mexico, it is critical to attract talent, improve in the international rankings and promote innovative and competitive ecosystems.

Therefore, it is vital to analyze how these factors such as job satisfaction, commitment and organizational justice influence on happiness and intention to rotate of university professors.

OBJECTIVE

To evaluate the relationship between job satisfaction, affective commitment and organizational justice with happiness and intention to rotate by university professors in Mexico

METHODOLOGY

In this study, a quantitative approach was used to analyze the interrelationship between the variables of job satisfaction, affective commitment, organizational justice, job happiness and intention to rotate in university professors in Mexico.

The research includes the application of surveys to professors in higher education institutions and uses statistical techniques, such as structural equation modeling (SEM), to evaluate the relationships between the constructs analyzed.

RESULTS

The variables job satisfaction, organizational commitment and organizational justice positively explain happiness at work and, in a negative way, the intention to rotate university professors in Mexico. However, happiness at work does not determine the desire for permanence of the employees of these organizations.

CONCLUSION

The value of this research for the area of Organizational Behavior in the Administrative Sciences lies in its contribution to understanding how psychological and cultural factors, such as organizational justice and affective engagement, directly influence staff well-being and retention.

Scopus Q3

retos.ups.edu.ec

Vol. 14 Núm. 28
october 2024-march 2025
pp. 199-215

Engagement and job satisfaction: evidence in the Peruvian commercial sector

Authors: Pilar Esperanza García Tamariz - Macarena Ayleen Mansilla Mah - Ricardo Mateo Dueñas

JUSTIFICATION

The study explores the relationship between commitment to task and satisfaction employment in the Peruvian commercial sector, providing valuable insights for improving human management policies in an emerging economic context.

OBJECTIVE

To identify the components that most influence job satisfaction of employees in the commercial sector in Peru and how these components vary with age.

METHODOLOGY

A minimum ordinary squares (OLS) was used with a Quadratic variable for age, based on Surveys applied to 260 Employees of 25 companies in the commercial sector in Lima.

RESULTS

There is a significant relationship between the components: challenge, inspiration and immersion in work (flow), and job satisfaction, especially with a quadratic trend according to the age of the employees.

Job satisfaction shows a non-linear variation with age, suggesting that satisfaction may experience both growth and decline at different stages of working life.

CONCLUSION

The study contributes to the existing literature by offering a new perspective on how the commitment to the task, specifically the challenge, inspiration and flow, influence job satisfaction with practical implications to improve well-being and work performance in the Peruvian commercial sector.

The findings underscore the importance of adapting HR management policies to the specific needs of employees based on their age to maximize job satisfaction.

Scopus Q3

retos.ups.edu.ec

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Vol. 14 Núm. 28
october 2024-march 2025
pp. 217-232

Human resource analytics for change and happiness management

Authors: Arturo-Julián Abellán-Sevilla - Marta Ortiz-de-Urbina-Criado - Eva-María Mora-Valentín

JUSTIFICATION

Nowadays organizations are searching for new management perspectives of the human resources they have and the well-being and happiness of workers. Analytics of human of resources (AHR) are good tool to achieve this.

OBJECTIVE

Analyze the Main Topics studies on AHR. Two research questions are formulated:
1) What topics have been studied on AHR? and 2) what are new topics on AHR?

METHODOLOGY

First, topics studied in literature were previously identified Secondly, a reflection process has been carried out from the works published in the last years to propose interesting and new topics.

RESULTS

In response to the first research question, the topics analyzed on AHR have been grouped into the following categories: context, internal aspects, tools, applications and effects.

In response to the second research question, two new topics have been identified: change management and happiness management, and two theoretical models have been proposed for adopting AHR, one for decision-making and another for organizational change.

CONCLUSION

The use of human resources analytics is a relatively new phenomenon that is a complementary tool to adapt to change.

Scopus Q3 retos.ups.edu.ec

Vol. 14 Núm. 28
october 2024-march 2025
pp. 233-254

Employee satisfaction and retention: social marketing and happiness

Authors: Araceli Galiano-Coronil - Sofía Blanco-Moreno

JUSTIFICATION

This research is essential to understanding the critical factors that influence employee satisfaction and retention in the Great Resignation Era, highlighting the need for organizations to address issues that lead to high turnover and dropout rates.

OBJECTIVE

To identify the key factors that contribute to employee satisfaction and provide information to improve work environments, the opportunities for professional growth and management practices to retain talent.

METHODOLOGY

The study employs a semantic network analysis of 138,764 employee reviews from 136 companies, collected through Glassdoor, to identify recurring issues related to the work environment, career growth, workload, and management practices.

RESULTS

The research finds that both current and former employees highly value a positive and supportive work environment, which plays a crucial role in their job satisfaction and retention.

CONCLUSION

The study concludes that improving management practices, providing better opportunities for career growth and ensuring fair pay are key strategies to improve employee satisfaction and reduce staff turnover. It highlights the importance of offering flexible working arrangements to improve employee retention and attract top talent, particularly in a competitive global market.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

UNIVERSIDAD POLITÉCNICA SALESIANA ECUADOR | Retos Revista de Ciencias de Administración y Economía

Vol. 14 Núm. 28
october 2024-march 2025
pp. 255-268

Happiness management and university entrepreneurship: literature review

Authors: Pedro Cuesta-Valiño - Pilar Yustres-Duro - Laura Melendo-Rodríguez-Carmona - Estela Núñez-Barriopedro

JUSTIFICATION

The increase in the importance of the concept of happiness management in the last ten years makes it necessary to review the literature to assess the main lines of research and possible gaps.

OBJECTIVE

To identify the existing relationships between the management constructs of the happiness-entrepreneurship.

METHODOLOGY

In this review of the literature, the PRISMA methodology is used, where a total of 391 articles selected as objects are reached through five filtering processes

RESULTS

The main thematic areas of this research are identified: business management and organization, business models, types of entrepreneurship, financing and skills and training. This research highlights the strong social and digital character of entrepreneurship, therefore the management of happiness within the company must align with these realities if it aims to be successful.

It highlights the value of having and working with the mechanisms of happiness management that have been hinted at by other names over the years, such as the management of emotions or the valuation of the well-being of the investor.

CONCLUSION

The lack of implementation of clear mechanisms of happiness management shows the need to contemplate this type of management within the training of entrepreneurs and workers.

Scopus Q3 retos.ups.edu.ec

UNIVERSIDAD POLITÉCNICA SALESIANA ECUADOR Retos Revista de Ciencias de Administración y Economía

Vol. 14 Núm. 28
october 2024-march 2025
pp. 271-282

Innovation Climate Scale: psychometric analysis in Peruvian workers

Authors: Sergio Dominguez-Lara - Manuel Fernández-Arata - Patricia Bárrig-Jó

JUSTIFICATION

Leadership, working group relationships and problem solving directly or indirectly affect individual innovative behavior through perceptions of innovation climate assessed with self-reports.

OBJECTIVE

Analyze the psychometric properties of the Innovation Climate Scale (ICS) in Peruvian workers. In recent years, companies are focusing their attention on creating an organizational climate more conducive to promoting innovative behavior, which requires an appropriate measurement instrument.

METHODOLOGY

The study design is non-experimental and transversal. Specifically, it is an instrumental study that analyzes the psychometric properties, particularly evidence of content validity and internal structure, as well as reliability of ICS in Peruvian workers.

RESULTS

Assessment of the internal structure of the ICS by confirmatory factor analysis indicates that a Brief and one-dimensional version of 11 items is recommended.

As for the validity based on the content of the items, the judges indicate that these are clear and relevant, appropriately reflecting the main features of the innovation climate. Thus, they will contribute to the operationalization of the construction in Peru.

CONCLUSION

The implementation of the ICS would allow companies to understand the role that the innovation climate plays in organizations and their employees, and to develop actions to promote innovation.

Scopus Q3

retos.ups.edu.ec

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Vol. 14 Núm. 28
october 2024-march 2025
pp. 285-301

Post-recession Business Growth: Impact on ROE in the Long and Short Term

Authors: Vladislav Spitsin- Marina Ryzhkova - Lubov Spitsina - Victoria Leonova

JUSTIFICATION

The world economy has been undergoing several crisis events. Many companies have experienced long periods of declining sales. This article continues the series of scientific papers on the study of restarting growth, i.e. growth after a long period of falling sales.

OBJECTIVE

To evaluate how restarting growth affects a company's financial performance. The article provides information by analyzing the impact of different types of growth restart.

METHODOLOGY

The study identifies four types of growth restart and business groups. Fixed-effect regression models are used to estimate the impact of each type of growth on profitability.

RESULTS

The investigation revealed a positive impact of long-term growth on ROE but did not confirm the impact of short-term growth on ROE.
The maximum profits accrue to start-ups with rapid long-term sales growth.

CONCLUSION

Empirical studies provide variable results on the impact of growth on company profitability. Our approach reconciles these contradictions and shows that long-term sustainable growth enables companies to achieve higher profitability.

These results are interesting to investors, who should focus on finding companies that can demonstrate annual sales growth over several years. It is also advisable for owners and managers to strive for long-term annual growth in company sales.

Scopus Q3

retos.ups.edu.ec

UNIVERSIDAD POLITÉCNICA SALESIANA ECUADOR Retos Revista de Ciencias de Administración y Economía

Vol. 14 Núm. 28
october 2024-march 2025
pp. 303-314

Gender differences in work values. A study in the Colombian labor force

Authors: Carolina Monsalve-Castro - Eddy Johanna Fajardo Ortiz - Reynier Israel Ramírez Molina

JUSTIFICATION

Changes in dynamics Business demands an approach detailed motivations of the human talent from gender to align the personal expectations with the organizational.

OBJECTIVE

To determine if gender influences in the orientation towards values extrinsic, intrinsic, social and prestige values in the working environment.

METHODOLOGY

A quantitative cross-section research was carried out using a questionnaire and applying factorial analysis and hypothesis testing.

RESULTS

Women show greater orientation towards extrinsic labor values, such as wages and job security. No significant differences were found between men and women in terms of intrinsic, social and prestige work values.

CONCLUSION

There are no gender differences in intrinsic, social and prestige values, which indicates equality in these aspects of work and opportunities from human talent to manage individuals under the same retention and loyalty strategies.

The orientation towards extrinsic values is more marked in women, thus suggesting the importance of these factors in their permanence in an organization.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Vol. 14 Núm. 28
october 2024-march 2025
pp. 315-329

Core Self-Evaluation: An Empirical Study in the Colombian Context

Authors: Orlando E. Contreras-Pacheco - Martha Liliana Torres-Barreto - Juan Camilo Lésmez-Peralta

JUSTIFICATION

Understanding the concept of core self-assessment and its effects about organizational behavior is key to properly manage the individual performance of employees.

OBJECTIVE

To explore the direct (original model) and inverse (inverse model) associations between central self-assessment and some organizational variables such as: happiness, motivation, satisfaction-employment status, and employment engagement.

METHODOLOGY

The study applies a cross-sectional instrument on 241 employees of the Colombian retail sector, which is analyzed through a modeling of structural equations.

RESULTS

In the original model, job satisfaction along with motivation were validated as the only antecedent variables of core self-assessment.

In the inverse model, the central self-assessment was confirmed as the antecedent variable of the five endogenous variables tested (happiness, motivation, job satisfaction, work commitment, and person-position compatibility).

CONCLUSION

The study concludes that the way an employee perceives/knows his/her own performance can determine his/her behavior (positive or negative) in the company.

Vol. 14 Núm. 28
october 2024-march 2025
pp. 331-342

Financial anxiety in Mexican corporate government: effect of self-efficacy and neuroticism

Authors: Alfredo Nava Govela- Jaime H. Beltrán-Godoy- Leovardo Mata Mata

JUSTIFICATION

Managing directors are a core element of corporate governance, as they are responsible for the accountability of the organization's performance.

The personal characteristics of the directors present a positive relationship with the quality of corporate governance in the organizations.

OBJECTIVE

To analyze the effect of financial self-efficacy and neuroticism on financial anxiety of directors of business administration.

METHODOLOGY

A model of structural equations was used to study the effect of financial self-efficacy and neuroticism of counselors on their financial anxiety under a quantitative, non-experimental and cross-sectional approach. The sample under study consists of 155 counselors.

RESULTS

Financial self-efficacy negatively influences financial anxiety, while neuroticism is positively related to financial anxiety.

Counselors who have high levels of financial self-efficacy manage to reduce their anxiety levels, which means that it will be easier for counselors with high financial self-efficacy to strengthen their stability capacity.

CONCLUSION

It is recommended that corporate governance managers consider personality traits as well as financial self-efficacy when planning the succession of their board of directors.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

Basic writing rules

Universidad Politécnica Salesiana del Ecuador

General information

"Retos" is a bilingual scientific publication by the Universidad Politécnica Salesiana de Ecuador, which has been edited on a bi-annual basis since January 2011. The journal focuses on Development and transdisciplinary issues including Public Administration, Social Economics, Marketing, Tourism, Entrepreneurship, Management, Administrative and Economic Science, etc.

It is an arbitrated Scientific Journal that uses an external evaluation system known as *peer-review*, employing *double-blind review*, in accordance with the American Psychological Association (APA) style rules. By using this system, the authors have access to an objective, impartial and transparent review process, which facilitates their publication being included in databases, repositories, and international indexed references.

"Retos" is indexed in the selective directory and catalog of the Online Regional Information System for Scientific Journals in Latin America, the Caribbean, Spain, and Portugal (Latindex), in the REDALYC Scientific Information System, the Directory of Open Access Journals in repositories, libraries, and specialized catalogs in Ibero-America.

The Journal is published with two different editions: printed (ISSN: 1390-62911) and electronic (e-ISSN: 1390-8618), in Spanish and English, and each article is identified with a DOI (Digital Object Identifier System).

Scope and policies

Themes

Original contributions in Development issues, as well as related fields: Public Administration, Social Economics, Marketing, Tourism, Entrepreneurship, Management...and all other disciplines related to the central thematic issue.

Contributions

"Retos" preferably publishes the results of empirical research about Development, written in Spanish and/or English, while reports, studies, and proposals are also accepted, as well as reviews of state-of-the-art literature.

All of the publications must be original, never have been published in any other journal, and not be undergoing any arbitration or publication processes. Contributions to the journal can include any of the following:

- **Research:** 5,000 to 6,500 words of text, including the title, abstracts, keywords, tables, and references.
- **Reports, Studies, and Proposals:** 5,000 to 6,500 words of text, including the title, abstracts, tables, and references.
- **Reviews:** 6,000 to 7,000 words of text, including tables and references. Justified, current, and selective references shall be evaluated, and should include around 70 publications.

"Retos" is published bi-annually (20 articles per year), in April and October, and each edition has two sections with five articles each, the first containing a **Monograph** theme edited by subject matter experts, and a second **Miscellaneous** section, made up of diverse contributions related to the publication's theme.

Presentation, structure, and submission of manuscripts

Papers are to be presented with Arial 10 typeface, single line spacing, all justified, without indentation or blank spaces between paragraphs. A space is only to be included between the major sections (title, authors, abstracts, keywords, credits, and epigraphs). All margins on each page must be 2 cm.

The papers are to be presented in Microsoft Word format (.doc or .docx), and the file is to be anonymous in the File Properties such that the author(s) is(are) not identified.

Manuscripts are to be submitted only through the OJS (Open Journal System), in which all authors must first register. Original papers sent via email or another interface are not accepted.

Manuscript Structure

For papers that are empirical research, the manuscripts are to follow IMRDC structure, while Notes and Contributions epigraphs are optional. Papers that constitute reports, studies, proposals, and reviews are afforded greater flexibility in terms of epigraphs, especially in relation to Materials and Methods, Analysis and Results, and Discussion and Conclusions. All types of papers are required to include References.

10. **Title (Spanish) / Title (English):** Concise but informative, the first line in Spanish and the second, in English. Maximum 80 characters are accepted, including spaces. The Editorial Board is allowed to propose changes to the author's title.
11. **First and last names:** of each of the authors, organized in order of priority. Maximum three authors are accepted per original paper, although justified exceptions may be allowed, based on the theme, complexity, and length. The names are to be followed by the professional category, workplace, each author's email address and ORCID number. It is mandatory to include whether the author has a doctorate degree (Dr. before the name).
12. **Abstract (Resumen, Spanish) / Abstract (English):** This section can contain a maximum of 230 words, first in Spanish and then in English. The abstract shall concisely contain the following, and in this order: 1) Justification of the theme; 2) Objectives; 3) Methods and sample; 4) Main results; 5) Main conclusions. It should be written impersonally "This paper analyzes..." In the abstract, automatic translation is not accepted due to its poor quality.
13. **Keywords (descriptores, Spanish) / Keywords (English):** Six keywords are to be included for each language, and must be directly related to the paper's theme. This requirement shall be scored based on whether the keywords can be found in the UNESCO Thesaurus.
14. **Introduction and State of the Question:** The section proposes the question, the context of the issue surrounding it, justification, basis, and proposal for the study, using bibliographic references, including the most important up-to-date literature on the theme, both nationally and internationally.
15. **Material and Methods:** This is to be composed in such a way that the reader can easily understand how the research was performed. As appropriate, describe the method, sample, sampling, and refer to the type of statistical analysis used. If it is an original method, present the reasons for applying it, and describe any possible limitations.

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618

16. **Analysis and Results:** This section should seek to highlight the most important observations, and without including any value judgments, describe the methods used. Throughout the text, essential tables and figures shall be included in a logical sequence, without repeating any data.
17. **Discussion and Conclusions:** This section summarizes the most important findings related to any observations from relevant studies, pointing out contributions and limitations, without repeating data from other sections. The discussion and conclusions paragraph is to include inferences and new lines of research for the future.
18. **Contributions and acknowledgment (optional):** The Science Editors Board recommends that the author(s) specify the financing source for their research. Priority shall be given to work endorsed by competitive national or international projects. Regardless, for the manuscript to be scientifically evaluated, it is to be anonymized with an XXXX only for the initial evaluation, in order to avoid identification of any of the authors or research teams, which are to be named in the Cover Letter and later, in the final manuscript.
19. **Notes** (optional) are included, only if necessary, at the end of the article (before the references). They are to be included manually, since the Word footnotes are not recognized by the layout systems. Note numbers are to be included using superscript, both in the text and in the final note. Notes including simple bibliographic references (without comments) are not allowed, since these are supposed to be included in the references.
20. **References:** Bibliographic references are to follow the text references. Under no circumstances should references be included that have not been cited in the text. There should be enough references in order to contextualize the theoretical framework, and be based on criteria of contemporary relevance and importance. They are presented alphabetically, according to the author's last name (if the last name has more than one word, based on the first word of the last name).

Rules for references

Periodical publications

Journal article (one author) Valdés-Pérez, D. (2016). Incidencia de las técnicas de gestión en la mejora de decisiones administrativas [Impact of Management Techniques on the Improvement of Administrative Decisions]. *Retos, 12*(6), 199-2013. https://doi.org/10.17163/ret.n12.2016.05

Journal article (up to six authors): Ospina, M.C., Alvarado, S.V., Fefferman, M., & Llanos, D. (2016). Introducción del dossier temático "Infancias y juventudes: violencias, conflictos, memorias y procesos de construcción de paz" [Introduction of the thematic dossier "Infancy and Youth: Violence, Conflicts, Memories and Peace Construction Processes"]. *Universitas, 25*(14), 91-95. https://doi.org/10.17163/uni.n25.%25x

Journal article (more than six authors): Smith, S.W., Smith, S.L. Pieper, K.M., Yoo, J.H., Ferrys, A.L., Downs, E.,... Bowden, B. (2006). Altruism on American Television: Examining the Amount of, and Context Surronding. Acts of Helping and Sharing. *Journal of Communication, 56*(4), 707-727. https://doi.org/10.1111/j.1460-2466.2006.00316.x

Journal article (with no DOI). Rodríguez, A. (2007). Desde la promoción de salud mental hacia la promoción de salud: La concepción de lo comunitario en la implementación de proyectos sociales. *Alteridad, 2*(1), 28-40. (https://goo.gl/zDb3Me) (2017-01-29).

Books and chapters of books

Complete books: Cuéllar, J.C., & Moncada-Paredes, M.C. (2014). *El peso de la deuda externa ecuatoriana*. Quito: Abya-Yala.

Chapters of a book: Zambrano-Quiñones, D. (2015). *El ecoturismo comunitario en Manglaralto y Colonche.* En V.H. Torres (Ed.), Alternativas de Vida: Trece experiencias de desarrollo endógeno en Ecuador (pp. 175-198). Quito: Abya-Yala.

Electronic media

Pérez-Rodríguez, M.A., Ramírez, A., & García-Ruíz, R. (2015). La competencia mediática en educación infantil. Análisis del nivel de desarrollo en España. Universitas Psychologica, 14(2), 619-630. https://doi.org.10.11144/Javeriana.upsy14-2.cmei

All reference that have a DOI (Digital Object Identifier System) must be included in the References (which can be obtained at http://goo.gl/gfruh1). All of the journals and books that do not have a DOI are to appear with a link (to the online version, if available, shortened using Google Shortener: http://goo.gl) and the date of query in said format.

Journal articles are to be listed in English, except for those that are available in Spanish and English, in which case, both languages are to be included in brackets. All internet addresses presented are to be shortened in the manuscript, except for the DOI, which are to be included in the established format (https://doi.org/XXX).

Epigraphs, Tables, and Graphs

The epigraphs in the article's body are in Arabic numbers. These are to avoid all capital letters, underlining, or bold text. Numbering should use maximum three levels: 1. / 1.1. / 1.1.1. A carriage return is to be used at the end of each epigraph.

Tables are to be included in the text in Word format, according to their order of appearance, with Arabic numbering and captioned with a description of their content.

Graphics or figures should be kept to a minimum and incorporated into the text, in accordance with their order of appearance, with Arabic numbers and captions with a short description. Quality should be no less than 300 ppp, if necessary, using TIFF, PNG, or JPEG formats.

Submission process

The papers are to be submitted in two files through the journal's OJS system:

1. **Cover letter and title page,** which includes the title in Spanish and English, first and last names of the authors (standardized format) with ORCID number, abstract in Spanish and English, keywords in Spanish and English, and a declaration that the manuscript constitutes an original contribution that has not been sent for evaluation in another journal, confirmation of the authorship, acceptance (as the case may be) of formal changes to the manuscript according to the rules, and partial transfer of copyright to the publishing house (use the official format).
2. **Completely** anonymized manuscript in accordance with the preceding rules.

All authors are to register on the OJS platform, even if only one of them will be in charge of correspondence. No author can submit two manuscripts simultaneously, with a penalty of not being able to participate in four consecutive editions (2 years)....

Print ISSN: 1390-6291; Electronic ISSN: 1390-8618