

Motivation and Job Satisfaction among Mexican Workers: Empirical Analysis of Alderfer's ERG Theory

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Abstract

The purpose of this chapter is to illustrate the use of structural modeling and the importance-performance matrix in human talent management. Following Alderfer's ERG approach, we analyze whether job motivation influences job satisfaction. A quantitative, non-probabilistic, cross-sectional design was used. The participants are Mexican export-industry employees. The results indicate that existential needs do not influence job satisfaction; however, positive effects of interpersonal relations and individual growth needs are observed. The latter had the greatest effect on satisfaction, particularly the perception of continuous learning. It is recommended to continue exploring this relationship through qualitative approaches.

Introduction

Human resources are strategic assets because of their great influence on success. Effective management of employees is critical because of their significant contribution to meeting goals, performance, and success (Cwibi, 2022; Mahmoud et al., 2021; Nguyen et al., 2020; Werdhiastutie et al., 2020). Managers must be mindful of and respond appropriately to their needs and demands because doing so increases productivity, personal accountability, morale, and tenure (Hajiali et al., 2022; Mahmoud et al., 2021; Paais & Pattiruhu, 2020). Moreover, effective management of individuals' needs increases motivation to work (Dongoyaro, 2021).

In the field of management theory and practice, motivation plays a central role (Rybnicek et al., 2019; Steers et al., 2004) because it drives the behavior of people (Hajiali et al., 2022). In an organizational environment, is perceived as a strong desire or need that stimulates employees to work, direct, and maintain satisfactory performance levels (Basalamah & As'ad, 2021; Hajiali et al., 2022; Mahmoud et al., 2021). Motivation has noticeable effects on employees' desire to use their capabilities to achieve results and increase their autonomy, performance, commitment, job stability, teamwork, personal efficiency, and satisfaction (Baker, 2004; Mahmoud et al., 2021; Paais & Pattiruhu, 2020; Rybnicek et al., 2019).

Another relevant issue in human talent management is job satisfaction. This construct is one of the most studied affective measures in the literature on disciplines such as organizational psychology, administrative management, and human resources (Baker, 2004; Mat Tiya & Mohd Yunos, 2021; Sypniewska et al., 2023). Job satisfaction is a critical variable because of its noticeable influence on customer service and economic performance (Mahmouth et al., 2021). Among its predictor variables, we can find motivation, perception of organizational support, and psychological empowerment, and its consequences are well-being, sustainable employee development, and reduction of abandonment behaviors such as absenteeism and turnover (Baker, 2004; Maan et al., 2020; Sypniewska et al., 2023).

Although motivation is an extensively researched topic, knowledge gaps exist. For instance, Rybnicek et al. (2019) highlighted the need to examine whether commonly used motivation theories are valid. This study considers this question and has two objectives: (1) determine whether job motivation, as explained by Alderfer's ERG theoretical perspective, has favorable effects on job satisfaction and (2) establish how to improve job satisfaction according to the type of motivational force. The subjects of this study are workers in the export manufacturing industry of the northern border of Mexico. The paper structure has several sections. The first part presents the theoretical background of the variables studied, followed by the methodology and analysis of the collected data and conclusions.

Theoretical Framework

Motivation

The word motivation arises from the Latin word movere, which means movement (Steers et al., 2004). Motivation influences and leads people's behavior to fulfill a need; it concerns the processes that trigger and maintain the development of goal-directed activities (Schunk & DiBenedetto, 2020; -tefan et al., 2020) and is like a propelling force that leads individuals to act (Sobaih & Hasanein, 2020). Motivation impacts a variety of areas of knowledge, including psychology and management, on topics such as leadership, teams, managerial ethics, decision analysis, and organizational change (Steers et al., 2004). Since the 1930s, this construct has become a focus of interest in industrial and organizational psychology, largely due to the findings of Hawthorne's studies (Locke & Latham, 2004). In the workplace environment, motivation refers to the set of intrinsic and extrinsic forces that elicit and determine the form, direction, intensity, and persistence of behaviors (Latham & Budworth, 2020; Pinder, 2008). In this context, is an effort to foster personal work and channel individual expertise to help firms achieve their goals (Basalamah & As'ad, 2021). The different proposals on this topic include the factors or events that activate, channel, and maintain human behavior (Steers et al., 2004).

Some publications have focused on process and content theories (Hajiali et al., 2022; Mahmout et al., 2021). The approaches differ in their motivation analyses. Content theories emphasize the notion of human desires or factors that influence actions, while process theories focus on defining the processes behind motivation and on establishing how employees are motivated by incentives in their work (Hajiali et al., 2022; Rybnicek et al., 2019; Steers et al., 2004). Content Theories Emerged in the 1950s and stress the notion of human desires or factors of the firm's actions. This group includes Maslow's needs theory, Herzberg et al.'s two-factor theory, Alderfer's ERG theory, and McClelland's needs theory. Process Theories appeared in the mid-1960s, with a focus on the processes underlying motivation and on establishing how organizational members seek incentives in their working conditions. In these theories, motivation is assessed from a dynamic perspective that seeks causal relationships over time. Locke & Latham's goal-setting theory, Bandura's social cognition theory, and Vroom's expectancy theory are process theories (Hajiali et al., 2022; Rybnicek et al., 2019; Steers et al., 2004).

Alderfer's ERG Theory

The hierarchy of needs theory developed by Maslow is the best known and one of the most widely used perspectives to explain mechanisms of human motivation (Arnolds & Boshoff, 2002; Stefan et al., 2020). Individual development is explained by a hierarchy based on satisfying priority needs. Needs are classified under five categories according to their importance: physiological, safety, belongingness, esteem, and self-actualization (the first three, related to basic needs to be met, and the last two, related to individual achievement and development of human potential) (Arnolds & Boshoff, 2002; Steers et al., 2004). The Maslow theory has not been immune to criticism; to correct its deficiencies and continue its development, Alderfer modified it and empirically tested its postulates (Arnolds & Boshoff, 2002; Stefan et al., 2020). To explain personal motivation, Alderfer considered three needs: material needs for existence, interpersonal relationships with people employees care about, and opportunities for personal development and growth (Alderfer, 1969; Arnolds & Boshoff, 2002; Acquah et al., 2021; Shikalepo, 2020). His model is known as ERG and is named following the first three letters of the needs he proposes: Existence, Relationship, and Growth. The author modified Maslow's theory and stated that in existence needs include psychological and security needs; in relationship needs, needs for affiliation and external esteem are added; and in growth needs, the author proposed group self-esteem and self-actualization needs (Putri & Putranto, 2020). Figure 1 presents the three types of needs.

Figure 1



Types of needs in Alderfer's ERG model

The model maintains the notion of a hierarchy of needs but without a strict order and without overlaps between categories (Alderfer, 1969). Maslow proposes a progressive satisfaction hypothesis, and Alderfer maintains that a person can seek to satisfy more than one need at a time, even from different categories; he also considers that employees can seek

needs of a lower level if those of a higher level are not feasible to fulfill (Hemamala-Muddarage & Nawastheen, 2022; Shikalepo, 2020). Alderfer's model is widely used in organizational behavior studies (Cwibi, 2022), and one of its strengths is its focus on the work environment of companies (Arnolds and Boshoff, 2002).

Job satisfaction

Job satisfaction is a vital factor when we attempt to understand organizational behavior (Berliana et al., 2018), given its association with productivity, performance, intention to leave, organizational citizenship, and employee engagement (Chhabra, 2013). Its essence is the perception of well-being (Riyanto et al., 2021). Locke (1969) defined job satisfaction as a pleasurable emotional state arising from the perception that one's work contributes to or facilitates the satisfaction of personal values; he considered it a complex emotional reaction associated to a relation between the person's desires and what he/she obtains because of his/her job. Basalamah & As'ad, (2021) reported that job satisfaction depends on an employee's appraisal of or reflection on their work. They also considered that this variable is a manifestation of employee attitudes.

The need for existence, relationships, and growth are motivational factors that influence job satisfaction. Employees seek to satisfy their needs and believe they will be financially rewarded if they do a good job (Chi et al., 2023). Economic rewards include monetary gains, for example, bonuses, commissions, utilities, housing allowances, and transportation (Chi et al., 2023). Ali & Anwar, (2021) indicated that economic compensation largely determines individuals' level of commitment and tenure. The reason is that employees are sensitive to wage questions because they affect their living standards (Geleto et al., 2015). Therefore, we have the following assumption:

H1: Satisfaction with existing needs has a significant positive effect on job satisfaction.

Remuneration is not the sole determinant of job satisfaction. Non-financial rewards such as recognition, appreciation, participation in decision-making, career development opportunities, and on-the-job training (Chi et al., 2023) also influence job satisfaction. Furthermore, Alrawahi et al. (2020) reported that promotion opportunities (promotions) are highly valued by employees. Gelato et al. (2015) stated that good relationships between colleagues and supportive superiors and subordinates increase satisfaction. Chi et al. (2023) reported higher perceptions of job satisfaction when employees felt accompanied, guided, and supported by their leaders. Finally, Marinucci et al. (2013) highlighted professional development and training opportunities as relevant factors for job satisfaction. Therefore, it is postulated that

H2: The satisfaction of Relationship Needs has a positive, significant effect on job satisfaction.

H3. Growth Needs satisfaction has a positive, significant effect on job satisfaction.

Methodology

The research design is quantitative, explanatory, non-experimental, non-probabilistic, and cross-sectional. Employees of companies in the export manufacturing industry (maquiladora) located in Ciudad Juarez, Chihuahua are the subjects of this study. These industrial plants are manufacturing shops of Hi-tech multinational companies, most of which are deploying strong improvement programs. The fieldwork was conducted in October 2022. The sample size consisted of 164 employees. This fulfills Hair's (2019) recommendation of having at least a minimum of 145 observations in the case of measurement models with three independent variables to achieve a statistical power of 80% and detect R2 values of at least 0.10, with a probability of error of 1%. having at least a minimum of 145 observations. The statistical methodology used was partial least squares modeling, and Smart PLS 4.0 software was employed.

We used a survey as a data collection technique, which was applied through a self-administered questionnaire provided to the participants physically or through a Google Forms link. The questionnaire was designed using scales available in the literature [see Table 1]. Motivation was measured using 20 items adapted from the Arnolds & Boshoff (2002) scale, in 5 categories of needs, each with 4 items: existence (pay); existence (benefits or fringe benefits); relationship (boss or superiors); relationship (colleagues); and growth. Job satisfaction was assessed using five items from a scale adapted from Soto and Rojas' (2019). The items were assessed using a Likert-type scale with 5 response options ranging from "strongly disagree" to "strongly agree."

Table 1

Operationalization of variables

Existence requirements (Payment)	Relationship needs (boss or supe- riors)		
ALEP 1. My job pays enough for me to live comfortably.	ALRJ1. My boss encourages employees to make suggestions.		
ALEP 2. My salary is sufficient to cover my basic living expenses.	ALRJ2. My boss takes my needs and preferences into account.		
ALEP 3. Considering the work I do; my pay is adequate.	ALRJ3. My boss keeps me up to date on what's going on in the company.		
ALEP 4. My salary is good compared to what other companies pay for jobs like mine.	ALRJ4. My boss corrects me when I make mistakes.		
Existence requirements (benefits or frin- ge benefits)	Relationship needs (partners)		
ALBC 1. The fringe benefits of my job cover a good part of my needs.	ALRC1. My coworkers help me when I need it.		
ALBC 2. The benefits program in addi- tion to my salary helps me achieve the stability I seek.	ALRC2. If necessary, I know that my coworkers will defend me.		
ALBC 3. Compared with other compa- nies, the additional benefits that I receive are better.	ALRC 3. I can talk to my colleagues about my feelings.		
ALBC 4. The fringe benefit program that I receive is fair.	ALRC 4. My coworkers listen to and accept different opinions.		
Growth needs	Job satisfaction		
ALCR 1. In my job, I always feel that I am learning new things.	In my job:		
ALCR 2. My job requires many skills.	SL1. I can develop my talent.		

ALCR 3. My job requires me to make important decisions.	SL2. I can do things that I am good at.
ALCR 4. I face challenges in my work.	SL3. I can participate in activities that I enjoy.
	SL4. I am satisfied.
	SL5. I feel good about my accomplish-
	ments.

Common method bias

According to Harman's single factor, common method bias exists when the unrotated solution generates a single factor that explains more than 50% of the variance Kock et al. (2021). This work applies the exploratory factor analysis (EFA) to identify the percentage of explained variance included in a single factor. The results show that items grouped in a single factor explain 38.48% of the variance, which is lower than the maximum limit of 50%. As an additional criterion, we review VIF values of the constructs. The VIF results were lower than 5.0, confirming the inexistence of common method bias.

Results

Most participants were male [58.1%], married [51.2%], and 58.8% were between 18 and 30 years old. The most common schooling was a bachelor's degree [28.8%], 26.9% worked as technicians and 19.4% as engineers, 84.4% worked in the first shift, 55% had less than 1 year of tenure, 33.8% worked in the production department, and 18.1% worked in the manufacturing department.

Measurement Model

A confirmatory composite analysis (CCA) was performed according to the recommendations of Hair et al. (2020). This analysis is appropriate for PLS SEM because it maximizes the variance extracted from exogenous variables, thereby facilitating the prediction of endogenous variables. The CCA involves seven review steps: factor load, item reliability, composite model reliability, convergent validity, discriminant validity, nomological validity, and predictive validity.

a) Factorial loads

The original measurement model included 25 items that were retained in the final model. The recommended criterion for factor loads is that their value must be equal to or greater than 0.708 and statistically significant (t-values equal to or greater than 1.96) (Hair Jr. et al., 2020). As shown in Table 2, the factor loads of the model were between 0.766 and 0.907 and were statistically significant.

Table 2

Factor loads in the measurement model

Item	Factorial load	t-value
ALBC2	0.883	46.289
ALBC3	0.851	25.381
ALBC4	0.895	48.257
ALCR1	0.818	29.934
ALCR2	0.826	22.467
ALCR3	0.833	23.127
ALCR4	0.795	15.320
ALEP1	0.901	66.664
ALEP2	0.855	25.037
ALEP3	0.900	63.355
ALEP4	0.822	31.972
ALRC1	0.830	31.544
ALRC2	0.818	21.096
ALRC3	0.834	24.859
ALRC4	0.867	38.152
ALRJ1	0.864	33.337
ALRJ2	0.907	53.571
ALRJ3	0.827	24.429

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Item	Factorial load	t-value
ALRJ4	0.766	17.83
SL1	0.753	12.979
SL2	0.836	23.617
SL3	0.867	34.803
SL4	0.822	28.179
SL5	0.751	12.951

b) Reliability of Items

The factor loading values of the items were squared. These values should be equal to or greater than 0.500 because this is evidence of sharing at least 50% of the variance with the construct variance they belong to (Hair Jr. et al., 2020). Loads are presented in Table 3.

Item	Factorial load	Factorial load ²
ALBC1	0.882	0.779
ALBC2	0.883	0.780
ALBC3	0.851	0.724
ALBC4	0.895	0.800
ALCR1	0.818	0.669
ALCR2	0.826	0.682
ALCR3	0.833	0.693
ALCR4	0.795	0.632
ALEP1	0.901	0.813
ALEP2	0.855	0.730
ALEP3	0.900	0.811
ALEP4	0.822	0.675
ALRC1	0.830	0.690
ALRC2	0.818	0.670

Table 3Reliability of indicators

Item	Factorial load	Factorial load ²
ALRC3	0.834	0.695
ALRC4	0.867	0.753
ALRJ1	0.864	0.746
ALRJ2	0.907	0.823
ALRJ3	0.827	0.684
ALRJ4	0.766	0.587
SL1	0.753	0.568
SL2	0.836	0.699
SL3	0.867	0.752
SL4	0.822	0.675
SL5	0.751	0.565

c) Composite reliability and convergent validity

As a third step, the reliability of the latent variables was reviewed, which can be measured using Cronbach's alpha (α) and the composite reliability (CR) index; their values should be between 0.700 and 0.950 (Hair Jr. et al., 2020). The values are listed in Table 4. As can be seen, the α values are between 0.838 and 0.901, and the CR values are between 0.859 and 0.902 (rho_a) and 0.890 and 0.931 (rho_c). The convergent validity of the model can be determined using the average extracted variance [AVE], whose value is recommended to be equal to or greater than 0.500 (Hair Jr. et al., 2020). The last column of Table 3 shows the AVE values, which ranged from 0.669 to 0.757.

Table 4	4
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Composite reliability and convergent validity of the measurement model

Latent variable	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Existence needs: payment	0.901	0.902	0.931	0.771
Existence needs: benefits	0.858	0.859	0.904	0.702
Relationship needs with peers	0.863	0.872	0.907	0.710
Relationship needs with supervisors	0.838	0.862	0.890	0.669
N. Growth	0.917	0.918	0.932	0.633
Job satisfaction	0.883	0.887	0.907	0.552

d) Discriminant validity

For this type of validity, it is recommended to use the heterotrait-monotrait ratio of correlations (HTMT), which calculates the average of heterotrait- heteromethod correlations (Hair Jr. et al., 2020; Henseler et al., 2015). In this case, the indicator should be less than 0.85 [for constructs that are conceptually different] or 0.90 [for latent variables that are conceptually similar] (Hair et al., 2019). As shown in Table 5, the recommended criteria were met.

Table 5

Discriminant validity of the measurement model according to the HTMT ratios

	Existen- ce needs: payment	Existen- ce needs: benefits	Relations- hip needs with peers	Rela- tionship needs with su- pervisors	Growth needs
Existence needs: payment				-	
Existence needs: benefits	0.731				
Relationship needs with peers Polationship	0.531	0.352			
needs with supervisors	0.734	0.609	0.65		
Growth needs	0.385	0.306	0.473	0.492	
Job satisfaction	0.431	0.350	0.397	0.545	0.647

e) Nomological validity

To determine this, the scores of the model variables are correlated with another latent variable; if the results coincide with previous findings, then nomological validity exists (Hair Jr. et al., 2020). The correlation between model variables and performance was calculated using SPSS version 22 software. Previous research indicates that motivation and satisfaction are associated with performance (Alsafadi & Altahat, 2021; Berliana et al., 2018; Hajiali et al., 2022; Mira et al., 2019). The results of the correlation of the model constructs with performance are significant (see Table 6). These results agree with background information from the literature.

	Pearson correlation	Significance (2-tailed)
Growth needs	0.390 **	0
Existence needs	0.159 *	0.042
Relationship needs	0.214 **	0.006
Job satisfaction	0.360 **	0

Table 6

Correlation between model constructs and performance

Note: **. Correlation was significant at a 0.01 level (2-tailed), *. Correlation was significant at the 0.05 level (2-tailed).

f) Predictive validity

As a final step, the predictive validity of the measurement model was reviewed using MICOM analysis (Hair Jr. et al., 2020) as the criterion. Measuring invariance ensures that different estimates between groups do not arise from different meanings about the variable; therefore, it is necessary to ensure that there is configurational invariance, compositional invariance, and equality of means and variances in the latent variables of the model (Henseler et al., 2016). Two groups were created based on the marital status of the participants [single, married]. There is configurational invariance when the indicators, algorithm configuration, and data treatment are similar for the groups (Chua, 2022; Hair Jr. et al., 2020). Compositional invariance was determined using the results of the second step of MICOM, checking permutation p-values (must be less than 0.05]. Table 7 presents the results of this step, and it shows that the correlation between the scores of the composite variables [composites] of the married and single groups is consistent with 1, i.e. these composite variables were established in a similar way for the groups, which guarantees compositional invariance.

	Original correla- tion	Correlations of average permu- tation values	5.00%	P-permutation values
Growth needs	0.999	0.992	0.975	0.94
Existence needs	0.996	0.989	0.969	0.678
Relationship needs	0.981	0.976	0.929	0.44
Job satisfaction	0.998	0.997	0.991	0.48

Table 7

Compositional invariance determined in step 2 of the MICOM analysis

The equality between the mean values and variances of the constructs was established in the third MICOM step. Table 8 presents the values of MICOM step 3. As can be seen, there were no differences in either the mean values or variances of the groups. In summary, the proposed measurement model demonstrated predictive validity.

Table 8

	Original difference	Permuta- tion mean difference	2.50%	97.50%	p-value of the permutation
		Step 3	Ba (stocki	ngs)	
Growth needs	0.000	0.011	-0.337	0.371	1.000
Existence needs	0.304	-0.006	-0.349	0.353	0.091
Relationship needs	-0.268	0.000	-0.347	0.355	0.143
Job satisfaction 0.050 0.012			-0.373	0.370	0.788
		Step 3	Bb (varian	ces)	
Existence needs	0.271	-0.011	-0.473	0.427	0.231
Relationship needs	0.349	-0.010	-0.554	0.459	0.174
Job satisfaction	-0.106	-0.021	-0.524	0.410	0.667
Growth needs	-0.304	-0.022	-0.533	0.460	0.241

Step 3 of MICOM Analysis

Structural Model

In the evaluation of the structural model, three indicators were assessed: predictive relevance indicator Q², coefficient of determination (R²), and structural paths. The results demonstrate that the model is predictively relevant given that the Q² value for job satisfaction is greater than zero [0.237]. The result of the coefficient of determination shows that the model moderately explains job satisfaction (0.398). Finally, the evaluation of the structural paths allows us to affirm that existence needs [H1, β =0.119, t=1.429] have no effect on job satisfaction, but relationship needs [H2, β =0.186, t=2.045] and growth needs [H3, β =0.443, t=5.735] do have a positive and significant effect on job satisfaction. Comparatively, the effect of growth requirements is greater. Figure 2 shows the contrasted model.



Importance-Performance Matrix Analysis (IPMA)

Built on empirical foundations, the IPMA allows better analysis of how to improve the performance of key target constructs; this matrix extends the PLS-SEM results while keeping in mind the identification of predictor variables with relatively high importance and relatively low performance level (Hair Jr. et al., 2023). IPMA is a graphical representation that shows the importance and performance values of each predictor construct in a quadrant of 4 areas constructed with central axes whose value is determined by the average importance [0.250] and performance [64.825] of the predictor constructs. In this quadrant, the area with the greatest opportunity for improvement is in the lower right section of the quadrant [high importance, low performance], followed by the areas in the upper right [high importance, high performance], lower left [low importance, low performance], and upper left [low importance, high performance] sections. In this study, the endogenous variable is job satisfaction. As shown in Figure 3, growth needs were the construct with the highest level of importance [i] for job satisfaction, and it showed a high level of performance [d] [i=0.438, p=73.858]. Existence and relationships showed low levels of importance [0.115 and 0.199, respectively]. A low-performance level was found in existence needs [54.576], and high-performance levels were found in relationship needs [66.040].



Importance-performance matrix at the construct level



The procedure was replicated at the item level (see Figure 4). In this case, the IPMA central axes were set to i = 0.047 and p = 63.102. In the lower right quadrant are the items ALCR4 "In my job I face challenges" (i= 0.122, p=61.890), ALCR2 "My job requires many skills" (i=0.122, p=60.366) and ALCR3 "In my job I am required to make important decisions" (i=0.115, p=60.366). In all three cases, there were opportunities for improvement given their performance levels. In the upper right quadrant, the item ALCR1 "In my job, I always have the feeling of learning new things" (i=0.176, d=75.457) is located; compared with the previous items, the opportunity for improvement is lower, although this indicator is the most important for job satisfaction. The remaining items are shown in the lower and upper left quadrants. From an IPMA perspective, these items have low levels of importance.

Figure 4



Importance – performance map at the indicator level

When reviewing the results of the existence needs, it was identified that, regarding pay, three of the four aspects showed high levels of importance and performance; the exception was located in the employee's perception of whether the salary he/she received allowed him/her to live comfortably, which showed a low level of relative importance and a level of performance also below the average (i=0.018; p=55.0300). Regarding benefits, the results indicate that three of the aspects show low levels of performance and importance, the exception being the employee's consideration that the benefits package he receives for his job is fair (ALBC4), which shows a low level of importance and a high level of performance (i= 0.019, p=69.055).

Regarding the need for relationships with colleagues, the results revealed low levels of importance and performance. It is worth noting that the item ALRC1 "My coworkers help me when I need it" (i= 0.030, p=50.000) had the lowest level of performance. In this category, the item with the highest level of performance was ALRC3 "I can talk to my coworkers about how I feel" (i= 0.026, p=56.689). In the category of relationship needs with the boss, the results were different: three of the four items had low relative importance levels but above average performance levels.

In this group, the item with the best performance level was ALRJ1 "My boss encourages employees to make suggestions" (i=0.043, d=65.0901); the exception in this group was ALRJ4 ("My boss corrects me when I make mistakes" (i=0.035, d=60.823), which had low importance and performance levels.

Discussion and conclusions

The objective of this chapter was to exhibit how to use two statistical techniques in human talent management: structural modeling and the importance-performance matrix. Although motivation has been widely studied, recent work (Rybnicek et al., 2019) suggests an examination of whether the theories commonly used to explain it remain valid. Therefore, in this research, it was analyzed if work motivation, explained from Alderfer's ERG theoretical perspective, has favorable effects on job satisfaction. In addition, it was determined how to improve the performance of job satisfaction, according to the level of importance and performance of the motivational dimensions of this theory.

We proposed that satisfaction of existence needs has a positive and significant effect on job satisfaction. The empirical results did not confirm this relationship. In other words, in this industrial context pay and benefits do not generate job satisfaction. In addition, the results of the IPMA allowed us to identify that the satisfaction of existence needs has low importance for employees; in terms of their performance, most aspects of this motivational dimension show high levels, although opportunities for improvement were found in terms of benefits. In this aspect, our results coincide with Alrawahi et al. (2020) who found that pay is not a motivational factor associated with satisfaction, but rather a hygiene factor more closely linked to dissatisfaction.

We also assessed whether the satisfaction of relationship and growth needs has significant positive effects on job satisfaction. Empirical results confirm this relationship. Growth needs exert the greatest effect. These results support earlier studies (Chi et al., 2023; Gelato et al., 2015; Marinucci et al., 2013). Relationship needs were assessed in two categories: with supervisors and peers; both show low levels of importance. The performance levels were better in the supervisors' relationship. Moreover, we found opportunities for improvement in the relationship with colleagues, regarding whether colleagues are willing to help a coworker when he/ she needs. Regarding the growth category, the most relevant need, with good levels of performance, was the perception of a sense of learning. According to these results, job satisfaction depends on the continuous perception of learning. Likewise, opportunities to improve performance were identified in growth needs related to: challenges faced at work, skills required and decision making.

Like other studies, this research has limitations. Results cannot be generalized given the non-probabilistic and cross-sectional design. Also, it must be reminded that ERG assessment scales are invariably biased by contextual limitations and interpretations (Pantouvakis et al., 2023). In addition, it is advisable that future studies explore whether the ERG motivational dimensions have effects on variables such as leadership style, commitment, organizational citizenship behaviors, and psychological contract. Finally, it is appropriate to follow up this study's results with qualitative research.

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