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# Job satisfaction. The case of information technology (IT) professionals in Spain

**Satisfacción laboral. El caso de los empleados del sector de las tecnologías de la información en España**

## I. INTRODUCTION

Employee dissatisfaction has a lot of impact on organizations: turnover, absenteeism, job stress, sick leave, humiliation, burnout, unproductiveness, and lack of commitment. Furthermore, the dissatisfaction of individuals has a direct effect on the profitability and quality of the product or service provided. The presence of unfair treatment among workers, the absence of training plans, the lack of recognition and incentives, the mismatch of tasks and functions among staff, different wages within the same employee categories, the disinterest in employees' health benefits, etc. yield labor environments without personal and organizational well-being. Therefore, there is no doubt that companies have to pay attention to employee satisfaction.

Employee satisfaction is determined by subjective perceptions related to the treatment received by the organization, for instance, policies of rewards, hiring and firing policies, performance and retribution. Satisfied employees are more likely to continue feeling motivated. Dissatisfied employees exert less effort, which results in declining performance and a general downward spiral to ineffectiveness (Clark and Oswald, 1996; Benjamin *et al.*, 2014). Therefore, any organization must identify the actual dimensions that affect employee satisfaction in order to manage successful and profitable businesses. Moreover, corporate values have to be

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### EXECUTIVE SUMMARY

Different variables are involved in job satisfaction. Based on a survey of 4207 IT professionals, this paper pays attention to the importance of job position, teamwork atmosphere, leadership, recognition and compensation, physical labor conditions and personal labor conditions as key aspects of employees' well-being. The results show that *job position content* is the first aspect that employees base their satisfaction rank on. *Physical labor conditions* and *leadership* are the least significant variables.

### RESUMEN DEL ARTÍCULO

Diferentes variables determinan el bienestar laboral. Así, basándonos en una encuesta con 4207 profesionales del sector de las tecnologías de la información, este artículo analiza la importancia del contenido del puesto de trabajo, el clima del equipo de trabajo, el liderazgo, el reconocimiento y compensación, las condiciones laborales físicas y las condiciones laborales personales en cuanto a aspectos clave de la satisfacción de los empleados. Los resultados concluyen que el *contenido del puesto de trabajo* es el primer aspecto que valoran los empleados en su rango de satisfacción. Las condiciones *laborales físicas* y el *liderazgo* son las variables menos significativas.

absolutely aligned with these job satisfaction dimensions. Unethical, unfair, uncivilized organizational behavior and values can yield significant consequences: job losses, health risks, psychological damage to individuals, and social injustice. Consequently, determining how corporate values have an effect on job satisfaction has practical significance to organization management.

By doing so, this study aims to identify the factors that influence job satisfaction in three ways. The first part of the paper is theoretical with regard to job satisfaction. In it, the paper identifies the most pertinent employee satisfaction variables as follows: job position content, teamwork atmosphere, leadership, recognition and compensation, physical labor conditions and personal labor conditions.

Then, the study identifies corporate values as a mediating mechanism between employees and job satisfaction. The last part of this paper focuses on the empirical analysis. The study employs statistical methods in order to address the questions. A wide survey (4207) of IT professionals in Spain is the illustrative case to analyze the factors that influence IT professionals' perception of job satisfaction and whether this general satisfaction is affected by corporate values. Finally, the conclusions provide a range of information to IT organizations related to their behavior and organizational structures that will allow them to seek out and boost employee satisfaction.

In short, the purpose of this study is to quantify and classify the job satisfaction level of IT workers in Spain, paying particular attention to the most important six dimensions of general job satisfaction. It is also relevant to check the role of corporate values as a moderator.

## 2. MOTIVATIONAL ASPECTS OF JOB SATISFACTION

Many scholars have theorized about job satisfaction or happiness at work, and in general it is defined as the positive affect towards employment, as a collection of feelings or positive responses associated with the job situation. These academics have also analyzed the consequences. Job satisfaction leads individuals to be more productive and innovative, to perform their job adequately and effectively, to be more committed, engaged, and enthusiastic, and to be more involved with the organization. Alexander *et al.*

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(1998) state that the absence of job satisfaction entails employees' relinquishment of organizational goals. Therefore, job satisfaction should be the strategic concern and main objective in any enterprise. If organizations focus on their human capital as their added and competitive value, they necessarily have to protect the employees' well-being. Job satisfaction of employees extensively contributes to the achievement of the organizational objectives, and therefore, stimulates positive attitudes such as engagement, enthusiasm or organizational commitment (Shaufeli and Bakker, 2004). Not for nothing is job satisfaction a recurrent topic analyzed in work and organizational literature. Ultimately, Greenhaus *et al.* (2002), Arnett *et al.* (2002) or Illies *et al.* (2009) conclude that job satisfaction is an attitude that relates to overall attitudes towards life due to its effects on general health, happiness and work/life balance.

Locke (1976) stated that job satisfaction is a positive emotional state resulting from the appraisal of one's job or job experiences, that is, as a result of the job characteristics.

The discussion of job satisfaction has usually focused on the following issues: the type of work itself, working conditions, working atmosphere, leadership and supervision, as well as recognition, opportunities, career progression and compensation (Moorman, 1993; Nemani and Diala, 2011; Limbu *et al.*, 2014; Meneghel *et al.*, 2016). The level of job satisfaction increases or diminishes depending on the aforementioned variables. And job satisfaction is the basis for work engagement. As different theorists argue, thrill and enthusiasm are measured by engagement or organizational commitment (Salas-Vallina *et al.*, 2017; Hakanen *et al.*, 2008). Engagement involves enthusiasm, energy, activation, dedication, efficacy, pride, alertness, commitment (Macey and Schneider, 2008). This commitment has three components –affective, continuance and normative– (Meyer and Allen, 1997) and refers to personal involvement, identification with the organization and value congruence. Engagement also refers to the degree to which the job becomes an essential part in an individual's life, that is, a result of meaningfulness at work (Salas-Vallina *et al.*, 2017). These last theorists conclude that happiness at work or job satisfaction has a unique effect on individual's feelings, attitudes and responses about working conditions, opportunities and outcomes.

Therefore, there are two main approaches to measuring job satisfaction: an overall measure of job satisfaction and one

#### KEY WORDS

job satisfaction, corporate values, organizational behavior, employees' well-being, IT.

#### PALABRAS CLAVE

satisfacción laboral, valores corporativos, comportamiento organizativo, bienestar del empleado, tecnologías de la información.

regarding several aspects of job satisfaction. Some of the most popular measures regarding several facets are the Job Descriptive Index (Smith *et al.*, 1969), the Minnesota Satisfaction Questionnaire (Weiss *et al.*, 1967) -one of the most well known and used over the time-, the Job Satisfaction Survey (Spector, 1985). These multidimensional measures contribute to a better and deeper understanding of the significance of job satisfaction.

### 2.1. Job position

Research shows that from the worker's perspective, the level of job satisfaction increases when employees find their work more interesting and rewarding (Hakanen *et al.*, 2008; Qasim *et al.*, 2012). The nature and content related to a job position defines a specific kind of employee satisfaction and well-being. It consists of: a variety of required skills to carry out the work; task identification, that is, knowing exactly what to do in the job position; the meaning of the task, that is, its impact to others inside and outside the organization; the degree of autonomy or independence to organize and monitor one's work; the responsibility to achieve particular results; and the received feedback related to job performance, effectiveness and results. In that sense, a higher and significant job level involves more prestige, status, pride, and power (Nicholson and de Waal-Andrews, 2005).

### 2.2. Teamwork atmosphere

The quality of coworkers' relationships is a crucial aspect of employee satisfaction. There are different aspects that contribute to generating favorable teamwork: cohesion, attractiveness, coordination and interaction, frequent and open communication, and psychological safety. Cohesion is the tendency of a set of individuals to stay harmoniously joined to achieve the group goals. Attractiveness has to do with the satisfaction due to the sense of belonging, the support of the rest of the employees, the feeling of being part of something more important, greater. The level of work coordination and interaction also has effects on teamwork behavior. As Yang (2016, 4) insists "teams can maximize members' cooperation with colleagues, volunteering for tasks that go beyond their formal work requirements, and exhibiting helping behaviors toward others". Porath and Pearson (2010) describe the importance of psychological safety that is created by a team, which



guarantees engagement in interactions with other individuals, help and feedback. Thus, a positive teamwork atmosphere provides meaningful insights into organizational sustainability and well-being. Given that individuals are subject to their work environment, their perceptions and interpretations of certain events are likely to be influenced by the perceptions of others who work closely with them.

### 2.3. Leadership

The leadership behavior theories consider that leaders' patterns of behaviors influence the followers' actions and team functioning (Demmy *et al.*, 2002; Fisher, 2010; Breevart *et al.*, 2014). From a functional perspective, team leaders or supervisors have to manage personnel resources and their progression toward task accomplishment. Despite functional hierarchy in organizational structures, accessibility and disposition of leaders have to be easy, clear and direct. Furthermore, support of subordinates' needs, personal values, adaptation and versatility skills are the essence of positive leadership, as well as the harmonization of employees' personal wishes with organizational needs (Ciulla, 2004; Avolio and Bass, 2004; Stone *et al.*, 2004; Warr, 2007; Zhu *et al.*, 2009; Tims *et al.*, 2011). Transformational leadership is one of the most inspiring leadership styles (Burns, 1978; Bass, 1985) due to leaders and followers raising one another to higher levels of morality and motivation. It generates positive attitudes at work (George and Jones, 1997) and higher levels of employee engagement with organizational objectives, even beyond their own self-interests. Accordingly, transformational leaders promote participative management practices by allowing their subordinates to be involved in the decision-making processes. They encourage them to take on personally challenging, demanding tasks, to solve problems and to produce innovative ideas and solutions (Dulewicz and Higgs, 2005). They regularly remind subordinates of the purpose of their work and stir the emotions of the employees.

### 2.4. Recognition and compensation

Recognition refers to the training and promotion opportunities that the organization offers its staff. These opportunities are linked to the performance assessment of each employee. The organizations use training and development practices to improve the ability of the workforce to implement the firm's business strategy.



Improving the competence of the employees is one way to create competitive advantage, organizational cohesiveness and employee commitment. By offering training and development opportunities, employers help employees develop their own personal competitive advantage and ensure their long-term employability (Tannenbaum, 2002; Salas and Kozlowski, 2009). A common source of employee dissatisfaction is the lack of career advancement opportunities. When employees do not receive such opportunities, they are likely to not feel committed, loyal, enthusiastic to the organization, and they constantly think to leave. Training and development opportunities are a form of attractive recognition of talented workers. Competitive models often guide the design of career development activities. With an understanding of the competences that will be needed by future positions, companies can design the required development plans. Compensation has to do with the employees' perception of their rightful salaries and the rest of organizational incentives: if they are enough to satisfy their personal needs, satisfaction can be guaranteed. This compensation factor includes fair wages; the relation between the salary and the required skills, knowledge, abilities and professional competences; the link between the salary and the workplace outcomes; the level of internal fairness and equity among the employees' salaries and the level of external competitiveness (Clark and Oswald, 1996; Hamermesh, 2001; Card *et al.*, 2012).

Furthermore, recognition and compensation have to do with effective performance management. It can enhance and increase employee motivation and productivity, support achievement of the organization's strategic goals, and facilitate strategic planning and change.

## 2.5. Physical labor conditions

This variable refers to safety and well-being conditions in particular at the workplace and around the whole organization. It also refers to aesthetic conditions, that is, the level of cleanliness, internal order, light, furniture... It has also to do with the hygienic conditions, which means the perception of a healthy environment related to temperature, humidity, and noise... that in turn affects health, mental concentration and general labor activity. Finally, it has to do with the ergonomic conditions, that is, the level to which the work resources and their location fit the physical and psychological requirements





of the employees. These are working conditions that contribute positively to employees' satisfaction.

## 2.6. Personal labor conditions

Personal labor conditions refer to the work schedule and how it fits with the employees' necessities and expectations, as well as, whether there is a good balance between work and social, leisure and family time. Therefore, flexibility, comp days, leave of absence, maternity leave, paternity leave, the option of working from home or from a remote location, etc. are aspects to take into consideration, given their importance. Achieving a good work/life balance widely appeals to workers and determines their level of satisfaction.

## 2.7. Corporate values

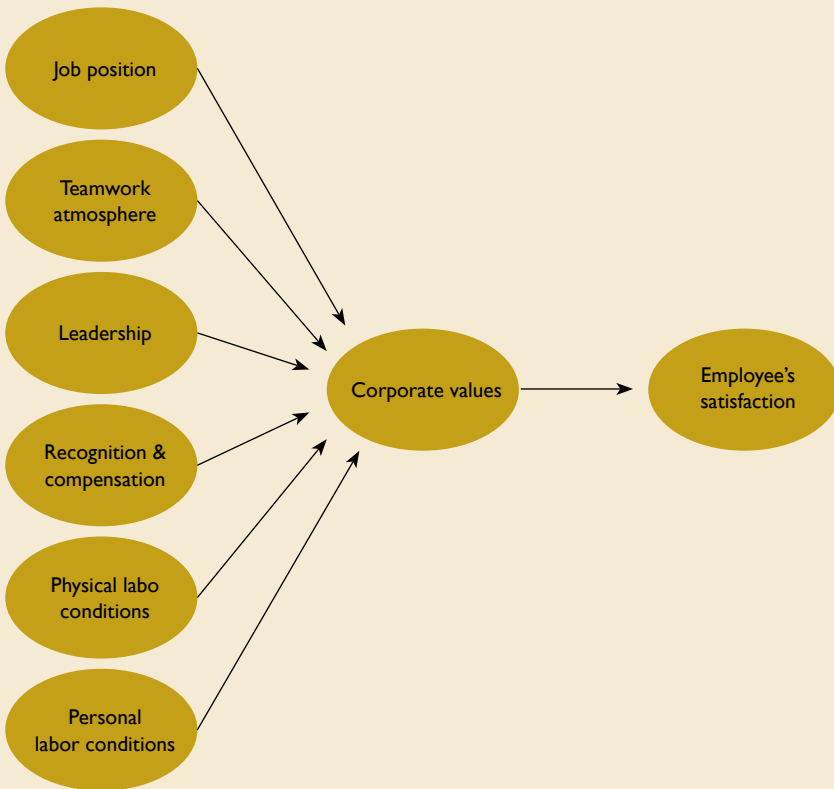
Eisenberger *et al* (1986) state the importance of the organizational values and their contribution to the care for employees' well being. Employees usually respond with support, engagement and commitment to the organizational tasks when the organization in turn shows them support, respect and recognition. The moral concepts and ethical behavior of leaders and managers have a wide effect on the moral concepts and ethical behavior of their subordinates (staff), and consequently on the organizational processes and results. Therefore, managers and leaders are key organizational figures to embody a caring attitude towards the rest of employees. The corporate values embody assumptions of goodness, integrity, honesty, civility and virtue. On the other hand, moral wrongdoing may undermine the morality of an organization and legitimize all kinds of (negative) behavior.

In accordance with all the questions formulated above, the proposed model is shown in **Figure 1**. This model contains 6 independent variables -job position, teamwork atmosphere, leadership, recognition and compensation, physical labor conditions and personal labor conditions-, corporate values as a moderator variable and satisfaction as the dependent variable. The model is designed to determine the statistically significant drivers of employees' satisfaction, but also to test the moderator role of corporate values between independent variables and satisfaction.





Figure 1. Proposed model



### 3. STATISTICAL-DESCRIPTIVE ANALYSIS

In order to be able to carry out an in-depth analysis of the employees' satisfaction, a survey was prepared. Data was collected in Spain with the cooperation of 10 different organizations, whose businesses include e-business, Internet technology, and telecommunications. All the companies have formal hierarchical organizational structures. The survey was done between November 2015 and March 2016. The aim of the research is to determine and classify the primary factors of IT professionals' satisfaction, and whether corporate values affect the strength of the motives towards satisfaction.

For data collection, the survey was administered maintaining the confidentiality of the responses. 4557 employees answered

questions related to variables that lead to job satisfaction. However, the final sample includes 4207 respondents. The questionnaire is based on the 6 aforementioned dimensions. It consists of 38 items rated on a 5-point Likert scale (1 “almost always untrue”, 2 “often untrue”, 3 “sometimes true/sometimes untrue”, 4 “often true”, 5 “almost always true”). Prior to distribution, the questionnaire was preliminarily tested in order to formulate questions that would be clear and understandable to the respondents. Therefore, a preliminary survey was performed on a small group of 30 randomly selected respondents. By analyzing the suggestions obtained from the pilot sample, minor modifications were made to the initially formulated statements, shaping the final version of the questionnaire.

Data analysis was conducted using the Statistical Package for Social Sciences (SPSS) (version 21.0) and the Analysis of a Moment Structures (AMOS-in) (version 18.0) in order to analyze the research model and to study the relationships between the aforementioned different variables and the weight that each of them places on the others. Moderated regression analysis was used to test the main and interaction effects. In addition, the independent variables were first centered and then multiplied by each other, in order to avoid a multicollinearity problem that may occur when calculating interaction effects.

#### 4. JOB SATISFACTION IN THE IT PROFESSIONALS SECTOR

The structure of the sample consists of 4557 respondents. However, only 4207 questionnaires were well answered. 61% of respondents were male and 39% were female. With regard to the Mintzberg's organizational structures, 79.1% of respondents are operating core, 6.9% constitute middle lines and 14% belong to strategic apex (Table 1).

To determine the influence of the six dimensions (job position, teamwork atmosphere, leadership, recognition and compensation, physical labor conditions, personal labor conditions) on employee satisfaction, a multiple linear regression model was performed, adjusting by gender and hierarchical position. The weight and significance of any dimension positions on the employee satisfaction show the following order: the job position dimension is the best predictor of satisfaction; followed, at some distance, by teamwork atmosphere, recognition and compensation, personal labor conditions; and lastly physical labor conditions and



leadership. Furthermore, the variable corporate values did not show a moderating effect on the relation of the other variables to satisfaction.

According to the results of the study, there is a statistically significant relationship between all independent variables and employee satisfaction. Also, they show the rank of importance of all of them. Thus, the best employee satisfaction predictor is job position, that is IT employees consider that content, nature, meaning, goal significance linked to the organization's objectives, level of autonomy or the independence degree in the daily work are critical to achieving labor satisfaction. The second best predictor is teamwork atmosphere. That is, aspects such as cohesion, attractiveness, coordination, interaction with colleagues, and open communication are also decisive to guaranteeing employees' satisfaction.

Thus, job position and teamwork atmosphere are essential dimensions in technological firms' organizational structure. Their singular operational design explains these two dimensions since their way of working and expected results imply highly competent and professional human teams, with constant interaction among them to progress in technological innovation and creativity. Therefore, it is not surprising that autonomy, responsibility, significance and meaningfulness to the organization are very relevant aspects to IT employees, as well as the consolidation of a real environment of teamwork. The effort of the organizations must therefore focus on designing very attractive, autonomous and independent positions, constantly watching over the work team, so that the atmosphere of cooperation, friendship, collaboration, helping behavior, mutual understanding, and positive and fluent communication are not diminished.

Recognition and compensation are ranked at the third position in this classification of the most important dimensions for IT employee's satisfaction. Training and career plans offer opportunities to the employees' development and those are relevant variables to IT employees. Their recognition depends on their performance assessment, and compensation, salary and other kinds of remuneration.

At the fourth position, IT employees consider personal labor conditions as a relevant satisfaction variable. That is, the real chance to find a balance between the personal life and the professional one. It also means to feel and verify that their job position and their organization offer a flexible schedule and a workplace that is psychologically and emotionally healthy.

Finally, and with a real moderate importance, the physical labor



conditions and the leadership are situated at the fifth and sixth position respectively. Therefore, the required resources and equipment to do the job, the physical safety of the place to work, and the working environment (light, air circulation, furniture...) do not have strong relevance to IT employees' satisfaction. Furthermore, the leadership is the last variable taken into account for IT employees. In these technological companies the focus is on teamwork, interaction and collaboration with colleagues, so the leadership or direct supervision usually has to do with delegation, democratic participation, autonomy, etc. attending to the competences of the professionals involved. Their own commitment and implication with the organization goals lead them to higher levels of satisfaction and that means that other variables, such as leadership, are not essential.

Last but not least, the corporate values should be highly aligned with staff needs and expectations. However, it is verified that for IT professionals this does not have a direct significance due to the nature of the technological sector itself: very dynamic, open-minded, creative, even the recent creation of this kind of organizations.

## 5. CONCLUSIONS

This paper focuses on the understanding of job satisfaction dimensions as well as corporate values in the IT sector. According to the *Consejo General de Colegios Profesionales de Ingeniería Informática (CCII)*, General Council of Professional Associations of Information Engineering), the Spanish IT sector will need more than 100.000 professionals in 2020, and between 720.000 and 1.300.000 in the rest of Europe. In the present days, the IT sector represents the 1.23% of total Spanish industry and hires 1.35% of the working population (MINETUR, 2016). Therefore, the current and future importance of this sector and the labor health and satisfaction of their employees become the central aim of this research.

Using a multitude of theoretical literature and based on a survey in ten representative Spanish IT companies with 4207 respondents, we can conclude that among the different aspects, job position dimension and teamwork atmosphere are the two best predictive variables of employees' satisfaction. Related to the second goal of this paper, it highlights that corporate values have no significant effect on IT employees' satisfaction.

Therefore, IT organizations have to pay extra attention and make an effort to design significant, attractive and meaningful job positions, basically at operating core levels. This aspect guarantees the IT employees' happiness at work. They also have to maintain



good levels of teamwork among their professionals. A pleasant, communicative and collaborative work atmosphere implies a better teamwork climate and contributes to an organization's efficiency, creativity, innovation and results, as well as to the employees' well-being.

IT organizations have an implicit differentiation in their way of working, and this explains the relevance of a team atmosphere in their employees' satisfaction. It highlights the competence and background of each of their employees as well as the need of constant collaboration in order to innovate. The environments that favor creativity, innovation, and non-stop advance are those that generate pleasant workplaces so that the people who live with and participate in them feel good, feel respected, accepted, appreciated, and valuable. When the organization leadership empowers staff to create particular teams to join and work in, to voluntarily establish synergies among employees avoiding impositions, it generates a work atmosphere that facilitates the task and the achievement of the organization's goals.

On the other hand, leadership is one of the less significant satisfaction variables, due to the fact that in IT organizations supervisors have a mainly facilitative function. That is, their main function is the creation of a pleasant, communicative and collaborative team atmosphere, but the rest of the work depends on the employees' own talent and competence. Despite leaders or supervisors not actively taking part, their management appears unperceived but very effective. Therefore, employees do not notice this leadership as a driver of happiness. Nevertheless, this transformational leadership is a model of integrity and fairness, provides support and recognition, and gets people to look beyond their self-interests through a variety of inspiring and unperceived mechanisms, and basically creates a sense of identity and being part of the organization project. The main tool used is the cession of autonomy and responsibility in task achievement, that is, sharing power with subordinates and raising their level of autonomy and responsibility in the decision-making processes and the taking on of risks. In that sense, leaders inspire, stimulate, influence and take into consideration each and all of their employees in a totally participative way. They create confidence and pride in the organization, transmit optimism and meaning for tasks, involve the employees in the organization's goals without imposition, but in a natural way. Not for nothing, the weekly briefing yields not only information but also confidence, trust relationship, involvement, participation, team building.

In the central positions of this IT employees' satisfaction classification, we also see the importance of *recognition and compensation and*



*personal labor conditions* on a similar level. IT employees value the chance to receive professional and development training, to have a career plan, to be well and fairly paid, but also they appreciate the balance with their private and professional life. Transformational leaders take into account these aforementioned aspects, following the individual wishes and aspirations. Yearly motivational and performance-appraisal interviews are used to guide the professional and personal growth of employees. However, daily or weekly impression exchanges, expected goals and feedback do much more to increase job satisfaction.

Finally, corporate values do not have a moderator role regarding IT professionals' satisfaction, which is due to the young, dynamic, open nature of these companies. That is, this sector is not a traditional one, it is a recent economic sector, and therefore its corporate values have no tendency toward discrimination by race, gender, age, religion, etc. In this tech world, personal differences are not much taken into account. The most important issue is the expected outcomes, the answers which the organization demands.

In short, one of the key factors for companies is the satisfaction of their employees. In the case of the technological sector in Spain, organizations have to focus on the two dimensions that are most involved in employee satisfaction: job position and teamwork atmosphere. This will ensure their business success and the retention of the human talent. The employees' well-being generates positivism, enthusiasm, commitment, and loyalty to the organization and teamwork objectives. Pampering, caring, protecting, and retaining talent is the highest goal of any human resource team. Knowing the variables that affect employees' satisfaction allows company managers to design policies for the creation of job positions and teams that contribute to employees' well-being and satisfaction. Transformational leadership plays an important role in this, but in a subtle, unnoticed, unremarked manner. Hence the importance and contribution of this study in relation to the sector of Spanish technological companies.



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## NOTES

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