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**THE RELATIONSHIP BETWEEN TRAINING AND SATISFACTION:
THE CASE OF PERSONAL AND COLLECTIVE PROTECTION EQUIPMENT.**

ABSTRACT

The objective of this research is to analyze the influence of HRM practices of training in the use and satisfaction of protective equipment. Exposed to physical and psychological risks and daily wear and tear, the need arises to value OSH (Occupational Safety and Health) to protect workers and make them more prepared and protected for the risks inherent to the wear and tear of the profession. The methodology used in this study was quantitative and was based on 97 questionnaires to professionals in the area. The study concludes that HRM practices such as training is a strategic factor for organizational satisfaction, with the participation of workers in the choice of protective equipment being one of the factors for creating the same satisfaction. It can also be concluded that training is a critical pillar in the success of the company, having a direct and positive impact on job satisfaction.

Keywords: Training; Satisfaction; HR Practices; Protection Equipment; Job Satisfaction

INTRODUCTION

To this extent, Human Resource Management (HRM) has become increasingly important to organizations, and can help or contribute to improving the performance of organizations, improving the ability to attract and preserve individuals with the skills needed to develop a function, designing the implementation of recruitment and selection plans tailored to needs, in companies developing reward plans and attractive skills development, creating guidelines for aligning behaviors toward the strategic objectives of the organization. Developing skills and career plans that enable the career development perspective and adopt compensation plans adapted to the development of personal skills, including creating causal ambiguity effects that allow the creation of work and consumption performances aimed at increasing the commitment of work teams (Santos and Popadiuk, 2010).

When we talk about occupational safety, hygiene and health today, we are undoubtedly talking about a multidisciplinary area of intervention, which has as its preferential objective the physical, psychological and physiological safety of workers, on the one hand, and comfort, health and social, emotional and family well-being on the other. This area relevant to organizational success is seen as a function of the State, as a regulator, and of companies, as transformers of the socio-economic fabric, influencing the modification/ alteration and improvement of existing counterproductive habits, especially at the behavioral level of approaching directly or indirectly with situations of danger and socio-professional risk (Zacharatos *et al.*, 2005).

Drucker (2000) challenges managers to invent the future and develop to the maximum the field of opportunities . In order to meet the challenge of this study, it seeks to deepen knowledge and develop skills in human resources management practices (HRMP) with the following objectives: Obj. 1- Understand if the PGRH are being implemented in companies in order to circumvent the use of protective equipment; Obj. 2- Make a comparative study between the various practices and identify those that best fit each company; Obj. 3- Understand if the PGRH in training and job satisfaction influence the use of protective equipment; Obj. 4 - Perceive what practices can be created to reformulate training and satisfaction and which are appropriate; Obj. 5 - Perceiving the management measures of preventive equipment and safety procedures used.

This article is divided into four points, the first point presents the problem of research, the second point the theoretical framework, the third point identifies in detail the methodology used in the research, the fourth point the analysis of data and discussion of results in accordance with the theoretical framework and finally the fifth point, the conclusions are set out.

LITERATURE REVIEW

Human Resources Management

The constant challenges imposed by the dynamics of the labour market have led companies to rapidly change structures and models of work organisation. Flexible organisations have succeeded highly hierarchical structures, in which the delegation of powers and decision-making power is given to the teams. Individual collaboration is now integrated in multidisciplinary teams with well-defined business goals.

Human Resource Management should not only be an area of providing a combination of personnel services, especially in selection and recruitment, salary management and training, but also be seen as a distinct area for internal clients, where areas of expertise are valued, where there is a guarantee of the organization's values and principles and where there are principles of equity (Cunha *et al.*, 2006).

The thought that the organisation depended on the success of advanced technology, sound financial position and the prevailing market situation must be accompanied by the awareness that to achieve success there must be motivated work teams with forward-looking, flexible and excellent productivity skills. After this thought transformation, Human Resources Management has come to be understood in a different way in organizations.

GRH holds the conceptual support of organizational and behavioral theories. In particular, the classical approach, bureaucracy, human relations, systematic approach and contingency approach. The classical approach has developed a reductive conception of individuals who were selected according to their technical capacities, economic shortages and management capacities. In 1927, Elton Mayo developed what became known as the human relations movement, highlighting the

informal dimension of the organization and identifying the human dimension as part of the various components that make up the organization (Neves, 2000; Hassard, 2012).

Human Resource Management Practices

Considering the increasingly competitive environment felt by companies, they tend to adopt more innovative HRM models, standing out in the involvement of individuals and the advantages of intellectual potential, dematerializing the management of people in a strategic goal .

Pfeffer believes that increasingly competitive markets depend circumstantially on innovation, speed and adaptability. For the author, the success of organizations depends almost exclusively on a good HRM, and a combination of good practices associated with this term. He also advocates the adoption of a set of HRRP, in accordance with the organization's strategy and other circumstantial factors .

The HRM assumes more and more value in the evolution of the organizational culture, directing it to innovation and learning, and developing a central role in the changes that occur internally and externally and that lead to changes in organizational structures, power relations and work organization practices (Sousa *et al.* , 2006).

The PGRH relies on organizations in various aspects, in improving the ability to attract and preserve individuals with technical and behavioral skills, which best fit the objectives of the organization, through the implementation of appropriate recruitment and selection procedures, as well as a system of rewards and development of attractive skills (Sousa *et al.* , 2006). Otherwise, it awakens behaviors adjusted to the strategic objectives of the organization's future, crossing the evolution of competencies and career plans that enable the perspective of professional progress (Sousa *et al.* , 2006). Also adopting a remuneration system related to the progress of individual skills, the performance of the team and the organization (Sousa *et al.* , 2006).

Also for PGRH, Pfeffer 1988, Becker, Huselid and Ulrich 2001, they also identify job security, selective recruitment, training and development opportunities, development oriented performance appraisal, career opportunities, remuneration with contingent performance components,

opportunities for participation and access to information(Becker *et al.* , 2001).

Cordeiro 2008, state that PGRH within an organisational system can be used and planned to achieve competitive advantages, and these practices can be grouped into three modules, motivational (reward and career management), participation (independent teams, participation mechanisms) and development (training, performance assessment focused on performance) .

Becker 2001, adds that for workers to be considered strategic assets for the organization, the human resources system must remain oriented with the method of implementing the organization's strategy (Becker *et al.* , 2001). Delery and Doty 1996 in the same line of analysis consider, however, that each human resources practice should not always be reflected as strategic. It is fundamental that, initially, HRM adopts some strategies, where cohesive human resource practices need to be planned and with continuous strategies. These HRM practices need to be implemented and applied unequally, according to the specificities and contingencies of the organisations (Delery and Doty, 1996).

Human resource management practices have an impact on organisational performance, making the relationship of human resource management with different organisational areas important in order to fairly consider the need for practices to remain sound with each other and with organisational strategy (Esteves, 2008).

However, there seems to be a consensus that implicit in the designation of high performance practices, high involvement, strategic practices, good practices, is a conception of HRM directed at maintaining and developing the skills and organisational commitment of employees, which is embodied in rigorous recruitment and selection practices, development-oriented performance evaluation, job security, merit-based promotions and rewards, and also in training and development practices, practices that encourage participation in decision-making processes and the sharing of information about the company.

The Practice of Training

Organizations use management practices to increase the value of human capital, human capital being understood as the set of skills, knowledge, competencies and personality attributes that

favour the performance of work. In order to produce economic value, these are the attributes acquired by a worker through training, skills and experience . The productive capacities of workers, their skills, their knowledge and their professional experience have an economic value for organisations, so the costs related to obtaining productive behaviour constitute an investment in human capital and are made with a view to a return .

It is not only scientific studies that underline the issue of training, the International Labour Organisation Convention No 187 also stresses the importance of social dialogue and the full participation of all stakeholders in this area as a prerequisite for successful management of the national occupational safety and health system. Vocational training at all levels is also considered a key factor for the system and its operability.

Meignant (2003), shows that the lack of training is actually induced by distinct principles derived from the organisation's external environment, customer requirements, competitors' strategies, new techniques or new components appearing on the market and political or regulatory constraints and opportunities.

According to the authors, in a broad perspective, training is equivalent to the process, whether formal or informal, planned or not, through which individuals acquire new knowledge, skills, attitudes and behaviors important for the execution of the work. Otherwise, this new knowledge should be applied in order to broaden performance levels, since the concept of training as a management tool oriented to achieve organizational objectives, especially to promote the performance of workers, but also of the organization itself (Gomes *et al.* , 2008). According to Bonache and Cabrera (2004), training in an organization can contribute to the growth of workers' commitment to the organization and, as a result, increase profitability, efficiency and quality, with lower absenteeism rates (Bonache and Cabrera, 2004). It is also important to stress that training leads to benefits for individuals, organisations and society.

It is important to stress that training interacts in several areas. Thus, according to the authors, the training seeks to obtain effects in three different aspects. First, knowledge, whose objective is to obtain more generic and specific knowledge. Secondly, knowing how to do, which makes it

possible to obtain motor skills and specific competences to do the job. And finally, knowing how to be and to be, which makes responsible an improvement in behaviors and attitudes (Gomes *et al.* , 2008).

In today's excessively competitive market and in an unstable economic climate, together with the shortcomings and demands of workers' development, training can be adapted as an essential contribution to the pursuit of organisational objectives. Today, training can be a fundamental factor for the progress of organizations and workers (Caetano *et al.* , 2000) depending also on training practices and strategic preferences of organizations (Lopes and Picado, 2010).

Job satisfaction

Recent studies show that the characteristics of the workers and the physical environment of the organisation have a weak impact on satisfaction. Otherwise, satisfaction manifests itself through the organization's commitment to the workers, i.e. the way the company cares about their well-being and the willingness to respond to their dedication (Siqueira *et al.*, 2008).

Job satisfaction (ST) is a subject of great importance, having begun to be awakened in the theoretical Taylorist model of work being the same questioned, starting to value the human factor in the organization. It has been a subject of study ever since, since it is associated with the productivity of organizations and the personal fulfilment of workers, even if empirically none of the causal relationships is proven (Lima *et al.* , 1995). Previously, ST was seen as a need for worker achievement and understood as the feeling of achievement, reward and success at work, being related to productivity, personal well-being and implying the adequate performance of tasks .

Maslow's theory relates job satisfaction to the characteristics of work corresponding to individual needs and seeks to understand the mechanisms that lead the worker to act. (Maslow, 1943, Camara *et al.* , 2013). These needs are structured according to a hierarchical pyramid of priorities. Each need serves as a motivation for action, in the sense of its realization, and the need of a higher order only arises when those of a lower order are realized. A satisfied need will lead to new dissatisfaction and the appearance of a new need, that is, a satisfied need does not represent a motivational factor (Ferreira *et al.* , 2001).

Herzberg developed the theory of hygienic and motivational factors, which contemplates satisfaction and dissatisfaction. According to this theory, the satisfaction of workers depends on the nature of the tasks and work, as determining factors, the perception of their role and the possibility of development that this role can provide. The factors that lead to dissatisfaction, called hygiene, are extrinsic, such as remuneration, working conditions and their organisation, and the relationship with management. These factors do not cause satisfaction, they only help to avoid dissatisfaction. Intrinsic factors such as recognition, responsibility and promotion lead to increased satisfaction. From the combination of factors, satisfaction does not vary from very satisfied to very dissatisfied. The opposite of professional satisfaction is not dissatisfaction, but the absence of satisfaction (Souza *et al.*, 2013).

Herzberg fits work context-related, or hygienic, factors at the lower levels of Maslow's hierarchy and work content-related (motivational) factors at the upper levels of Maslow's hierarchy. Thus, Herzberg's and Maslow's models contemplate each other, leading to a broader theory of behavior (Chiavenato, 1987; Camara *et al.*, 2013).

An individual's education, goals and ambitions are related to the satisfaction of professional life. This satisfaction reflects the feelings and beliefs of the individual, is subject to internal and external influences of the work environment, interfering in work and social behavior (Locke, 1983; Fonseca, 2012).

According to Nicholson (1995), the concept of job satisfaction can be understood as the emotional state resulting from the evaluation of one's own work, and can be negative, positive or neutral. The aforementioned author also points out that, a primordial element in the concept of job satisfaction that is seen as an affective state or as the worker feels about his own work, in opposition with the description of the function. This is a multifaceted definition that commonly covers satisfaction with co-workers, pay, working conditions, supervision, the nature of the work and benefits. If the organisation takes an interest in the working conditions and safety management of its workers more quickly they will recognise that importance is attached to safety at work, and satisfaction with safety will be achieved.

According to Clarke, a positive safety environment, where workers understand that safety is a priority and managers are involved, will add the sensitivity of commitment and satisfaction to the organization, influencing its behavior. Job satisfaction will influence motivation and commitment to safety rules, resulting in extra involvement in safety activities . The implementation of these measures will help to increase satisfaction with safety, and improve the practices implemented by companies.

Employment for the workers of an organisation should not only be work that is carried out in the workplace in order to receive a salary, but also for self-improvement and professional development, and the contribution to good job conditions. In the short term, a loss of human and monetary resources must be avoided, and in the long term, the competitiveness of the company must be ensured, care must be taken with working conditions and worker satisfaction, not detracting from the fact that a company fulfils not only its technical and economic function, but also a social role (Rafael and Lima, 2012).

Safety and Health at Work

Working conditions and productivity are directly linked, but a long period of time was indispensable to be recognized. First, the direct costs of accidents at work were only considered since there was a perception of the economic incidence, then occupational diseases were considered.

The link between working conditions and the work done by the worker has become more important since the limitations imposed by modern industrial technology, constituting a form of dissatisfaction for workers with more elementary tasks, without interest and with a monotonous and repetitive character. Therefore, it can be guaranteed that productivity is affected by two important variables the working environment that expose the worker to professional risks and the dissatisfaction of workers with working conditions.

Safety at work is a set of actions aimed at reducing the damage and losses caused by aggressors. Safety is one of the fundamental functions that must be exercised in any organization. A major

conceptual and strategic gap is to direct means to the safety function without considering productivity, quality, environment and workers' development. Performance is improved by balancing basic functions. Safety thus encompasses a combination of methodologies adapted to the prevention of occupational accidents, taking into account the identification and control of risks related to the working environment and the production process (materials, equipment, and operating modes).

Personal Protective Equipment (PPE) is any equipment, complement or accessory that is intended to protect the worker against risks to Safety and Health at Work, when these cannot be eliminated by means of collective protection or by engineering measures, methods or processes of work organization .

Whenever the acquisition of PPE is intended, different types of protection should be tested. The workers must be used in order to have an objective assessment criterion. In this assessment test, the following criteria must be taken into account: durability, protection effect, comfort and possibility of cleaning.. In determining the most appropriate type of PPE, risk assessment and control should be carried out, in particular: assessment of the physical, chemical and biological agents, analysis of the workplace and definition of the need to use PPE, there may be control measures which are not sufficient. The final choice should be made on the basis of a careful analysis of the job, as this worker participation leads to greater motivation to use PPE. PPE should be delivered with an instruction manual, in the language of the worker's country of origin, containing the information necessary for its use.

The employer must ensure: compliance with European standards of acquisition of PPE, ensure the proper functioning of PPE, keep available at the workplace information on each PPE, inform employees of the risks for which the PPE protects them, ensure training on the use of PPE and the management of PPE in order to replace it if it compromises protection.

For this reason, PPE should not push aside prevention and collective protection measures, but rather complement them, since PPE is an essential tool for reducing accidents by turning potential accidents into incidents or near accidents, reducing the worker's injury potential. Any organization

that acquires PPE should only do so if the CE mark is present and consequently adequate technical information is provided by the manufacturer .

METHODOLOGY

The research methodology is a discipline derived from logic and has as object the study of the scientific method. It can thus be deduced that the scientific method or process is a set of practices used and ratified by the scientific community as valid for the exposure and confirmation of a given theory.

In this sense, and considering the research classification criteria proposed by Vergara (2006) and Vilelas (2009), there are two ways in which we can classify the methodology used in the conception of research documents, in terms of ends and means (Vergara, 2006; Vilelas, 2009). The ends in this case refer to applied and exploratory research, while the means are linked to field study and bibliographic research.

This research was based on a pragmatic or inductive character, and was conducted from a non-probabilistic sample for convenience, constituted according to the availability and accessibility of the elements addressed (Carmo and Ferreira, 1998), in this case by individuals from multiple companies. In this sense, 60 questionnaires were sent by social networks (Messenger and WhatsApp) and it was not possible to identify the rate of return and a "post" was published on a Facebook page dedicated to Security Technicians. We returned 97 valid questionnaires, 20 of which were sent out by Job Security Technicians. The questionnaires were applied during approximately 60 days from March to May 2019. However, given that the interest in this research focused on whether training and satisfaction influence the use of PPE, generalization was not a primary objective either.

Data Analysis

This investigation was based on a set of primary sources, from the application of a questionnaire with open and closed questions of the 97 questionnaires considered valid, the sample of respondents is divided by the main sectors of activity: TSST, Civil Construction, Industry, Transport, Administration, Restoration, HR and Education. The sample under study consists

mostly of 55.6% (54) female individuals, the remaining 44.4% (43) male.

With regard to the distribution of respondents by age group, it can be considered that about 72% of respondents are aged between 35 and 60, with the 35-45 age group showing the highest frequency of responses. Of the 97 respondents, the majority (59.8%) completed a degree, 20.6% the Masters, 17.5% finished the 12th year and only 2.1% indicated having completed a PhD.

Of the 97 valid answers, about 50% (48) of the respondents say they are associated with companies with more than 250 employees; 20% (19) carry out their activities in companies with 151 to 250 employees; 10% (10) carry out their activities in companies with 11 to 50 employees; 9% (9) carry out their activities in companies with 101 to 150 employees; 8% (8) carry out their activities in companies with less than 10 employees and 3% (3) carry out their activities in companies with 51 to 100 employees. As far as the region of the respondents to the sample is concerned, it is vast, the main ones being: Lisbon, Leiria, Santarém, Porto and Viana do Castelo.

RESULTS DISCUSSION

This investigation started from a major issue "Human Resource Management Practices, training and satisfaction influence the use of personal protective equipment (PPE) and collective" translated into the general objective of analyzing workers' perceptions about training and satisfaction with protective equipment.

Since the problem cannot be measured directly, as there are many underlying dimensions and theoretical concepts, specific questions and objectives have been defined that would help us to find answers in a particular way. However, in general terms, we can state that the theme "training/satisfaction with the use of protective equipment" deserves the interest of those who participated in the study, recognizing its impact on development and professional performance.

The study was complemented with the application of an inferential study in order to verify if the set of statements regarding each research question presented differences between the different categories. The descriptive study linked to the assumptions regarding the research question, presenting the data linked to each question.

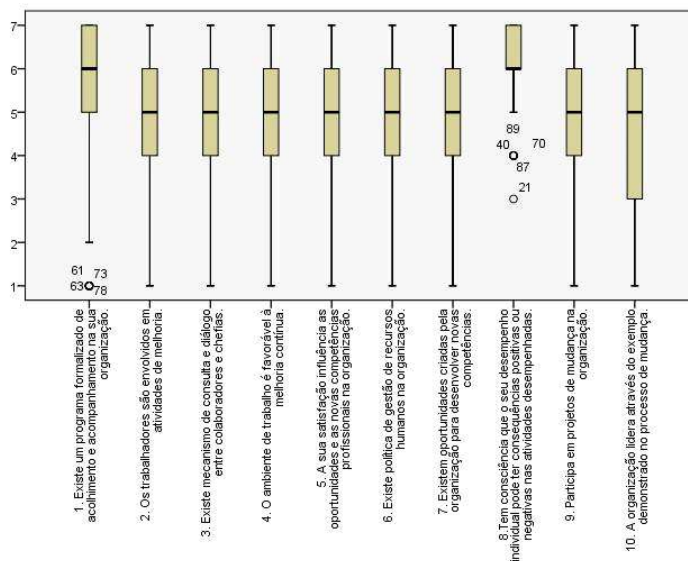
a. What HRM practices are used by companies to meet the needs of their employees?

Regarding the PGRH, the highest degree of agreement of the respondents is associated with the questions "8 - Is aware that their individual performance can have positive or negative consequences on the activities performed" and "1 - There is a formalised hosting and monitoring programme in your organisation". The degree of agreement of the respondents on question 8 shows an asymmetrical positive distribution, i.e. there is a higher degree of agreement of the respondents on this question ("I agree"/"I totally agree"). However, it should also be noted that there are 5 moderate outliers. Regarding question 1, the degree of agreement of the respondents is approximately symmetrical between the categories "I slightly agree", "I agree" and "I totally agree", and there are 4 lower moderate outliers associated with individuals who "totally disagree" with this information.

The answers to question 10 are those with the greatest variability of values and a slight negative asymmetry.

For the remaining questions, the respondents' opinions are distributed in a similar way, with 50% of the answers being between the levels of agreement "I agree" and "I do not agree or disagree".

Chart 1 - Distribution in relation to the PGRH



As has been mentioned, some authors argue that HRM practices should be applied which, when well applied, can lead to the satisfaction of workers' needs.

As far as the respondents are concerned and in agreement with what was verified by the literature review, most of them show a favourable degree of agreement with the answers given, so we can state that the practices of HRM, through the results obtained, there is indeed a positive relationship between the PGRH and job satisfaction, although not as strong as expected. As Pfeffer defends, 1998 "... the success of organizations depends almost exclusively on a good HRM, and on a combination of good practices associated with this term". This result may be related to several factors, particularly the size of the sample; to the fact that the majority of the sample is made up of middle-aged people, both in terms of seniority in the organisation and thus having influenced the perception of HRM in force in the organisation and, consequently, job satisfaction.

It is not enough to have an HRM policy in an organization. Above all, it is necessary to involve the worker with all his qualities and skills in order to make the organisation a single unit, as well as to incorporate the organisational and human aspects that are heading towards success. One way to make this perspective feasible is by involving employees in the structure of the most basic HR procedures, such as recruitment, training, reward and benefit systems, thus making their contribution more real, as well as adjusting strategies to the real needs and expectations of employees. This method will contribute not only to greater involvement, commitment and a better organizational climate, but also to greater satisfaction of individuals, who feel part of the organization. The authors listed below are Pfeffer, 1988; Rafael and Lima, 2012; Tatoglu, 2011; Lopes and Picado 2010; Bonache and Cabrera, 2004; Nicholson, 1995; Alcobia, 2001, and are just a wide range of testimonies that reflect these same practices increase the value of human capital with skills, knowledge and competence, in order to create value for the work and also produce economic value. The agreement of this set of practices satisfies the worker and determines his role in the development of the tasks that are inherent to him, which are also an agreement of the respondents.

b. Does training and job satisfaction influence the use of protective equipment or not? And

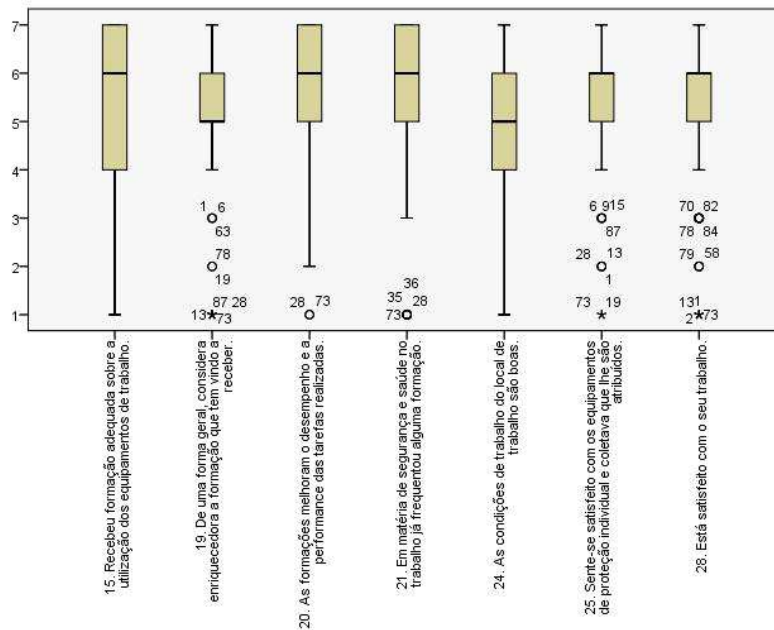
in what way?

Regarding training and satisfaction in the use of protective equipment, the highest degree of agreement of the respondents is associated with questions 15, 20 and 21. However, it is worth mentioning the existence of lower moderate *outliers* associated with questions 20 and 21, indicating that 2 individuals "do not agree" with statement 20 and 4 respondents "do not agree" with statement 21.

As for question 19 - "In general, the training you have been receiving is considered enriching", 50% of the respondents are between "I slightly agree" and "I agree". Their opinions are distributed in an asymmetrical positive way, with "I slightly agree" being the average opinion. However, there are also 8 lower *outliers* (5 moderate and 3 severe), which correspond to individuals who "disagree" or "totally disagree" with the statement.

Regarding question 24, the degree of agreement of respondents is roughly symmetrically distributed between the categories "Neither agree nor disagree", "I slightly agree" and "I agree", while for questions 25 and 28, the respondents' opinions are similarly distributed, presenting an asymmetrical negative relationship, i.e. there is a higher degree of agreement of respondents on this issue ("I agree"/"I totally agree").

Chart 2 - Distribution regarding the influence of training and satisfaction



As in any context the reproduction of this kind of ideas and thoughts cannot be generalized, not least because, as Delery and Doty (1996) have argued, PGRH cannot always be reflected as a strategy, as they have to be planned and cohesive in order to be applied unequally according to specificities and contingencies.

These days it is extremely important for organisations to invest in the training of their employees, not only to increase their productivity, but also to achieve results when fighting the competition. Therefore, and in order to verify the existence of standards, it was questioned whether training and job satisfaction influenced the use of protective equipment. The same is advocated by Veiga (2009), when he says that "...ensure training on the use of PPE and the management of PPE in order to replace them in the event that protection is compromised".

The results of this study, equally corroborate the conclusions presented in the literature review (Veiga 2009; Caetano, 2007; Caetano et al., 2000), having confirmed that the training provided to workers as long as it corresponds to their training needs, led to satisfaction. This may be related to the fact that employee satisfaction is closely linked to training opportunities, thus becoming a component of their working life.

Organizations that bet on their human resources, through training, reap better benefits and have accomplished workers, committed and satisfied with their work and the organization. This in turn makes the workers more willing to accept the use of the protective equipment imposed by the organization. This is due on the one hand to the satisfaction they feel and on the other hand to the fact that they perceive which organization invests in their development, feeling valued. Thus, the satisfaction felt by the workers is influenced by the training. As argued by Lima et al. (1995) "It is a subject of study since then, as it is associated with the productivity of organisations and the personal fulfilment of workers".

As Ferreira states, et al (2001) each need serves as a motivation for action, which means that a need satisfied will lead to a new dissatisfaction, which means that we will never have workers totally satisfied, a similar conclusion is made by Souza et al (2013). The data obtained can prove that there is not a completely unanimous value but answers presented, both for the satisfaction with the use of the equipment and for the satisfaction with the training.

It is concluded that training is a tool that empowers the worker with transferential skills and knowledge, that facilitates his adaptation to the use of work equipment, but also gives him satisfaction with its use, without, however, being harmed. It also becomes an added value for organisations that benefit from a reduction in accidents at work, satisfied workers and greater performance. As a result of these benefits, it is reflected in the satisfaction of the worker, in the commitment and dedication because it gives to the organization once it feels valued.

c. What are the differences between workers who are trained and satisfied with their work and the use of protective equipment?

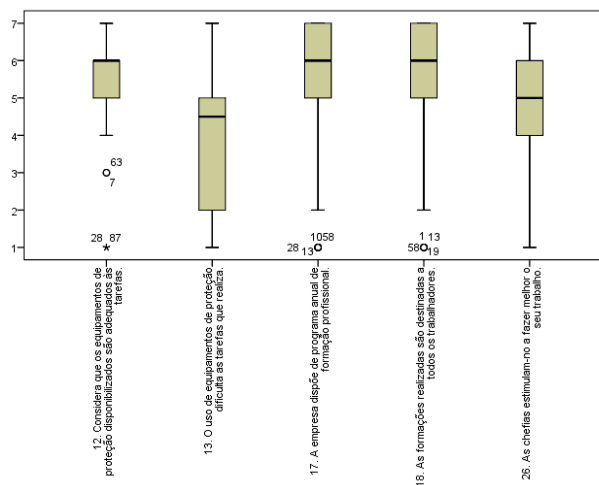
With regard to the differences between workers who are trained and satisfied with their work and the use of protective equipment, the highest degree of agreement of the respondents is associated with the questions "17 - The company has an annual vocational training programme" and "18 - The training provided is aimed at all workers". The median degree of agreement of the respondents with questions 17 and 18 is "I agree", with 50% of the answers being between the categories "I slightly agree" and "I totally agree". However, it should also be noted that there are 4 moderate *outliers* in question 17 and 4 moderate *outliers* in question 18, associated with individuals who

"totally disagree" with this information.

With regard to question 26, the opinions of the respondents are distributed approximately symmetrically, with 50% of the answers being between the levels of agreement "I agree" and "I do not agree or disagree".

As for question 12, the respondents' opinions are asymmetrically distributed in a negative way, with the median of responses being at the "I agree" level. Thus, it can be considered that there is a higher degree of agreement of the respondents regarding this question. However, it should also be noted that there are 4 *outliers* lower (2 moderate and 2 severe). The answers associated to question 13 also present a negative asymmetry, however they present a greater variability of values than those found for question 12 and the median level of the answers is between "Neither agree nor disagree" and "Slightly agree".

Chart 3 - Distribution of differences between training and satisfaction



This is of particular relevance to the younger generation in the labour market, workers are human beings, which means that everyone has weaknesses or gaps in their professional skills. If someone feels inadequate or insufficient at work and with the use of protective equipment, they probably do not feel motivated either. If they are not satisfied with their work, they tend to worry less about their professional performance, the quality of their work and the use or even non-use of protective equipment. On the other hand, workers who are able to update their knowledge and

develop their skills tend to be more satisfied and motivated to stay and deliver results.

When workers are not fully or properly trained in the performance of their duties and in the use of protective equipment, they take longer to perform their tasks and tend to neglect safety. Training makes it possible to fill gaps and weaknesses in knowledge and skills and is therefore one of the most widely used means of improving performance and meeting some of the needs. Participation in quality training allows workers to perform tasks autonomously, with less guidance and supervision by managers, contributing to an increase in productivity in the company. As already mentioned, the worker is an important part of the costs, which has to be well managed and it is up to GRH to develop this area.

Training is a strategic resource that prepares individuals in organizations to respond effectively to the constant changes and demands of the market, leading them to feel more satisfied with the environment that surrounds them within the organization. The value of companies rises significantly when there is a bet on the qualification of their human capital, because training allows the increase of know-how and contributes to the improvement of productivity rates, the reduction of accidents, the reduction of waste, bet on prevention and a better working environment. On the other hand, having satisfied and motivated workers stimulates their proactivity and creativity and the consequent predisposition to innovation and the creation of more effective and efficient working methods, being therefore defended by Cordeiro (2008) and Gomes et al (2008).

Considering the reasons presented above, it can be concluded that to make an investment in the formative skills of individuals is to make an investment for the organization. When an organisation is made up of a trained and satisfied team, it means that individuals have learned new skills that can help improve productivity, reduce errors and accidents, build trust and a better working environment.

d. What practices/measures should be implemented to create value in the use of protective equipment?

With regard to the practices/measures to be implemented to create value in the use of protective equipment, the highest degree of agreement of the respondents is associated with the question "11

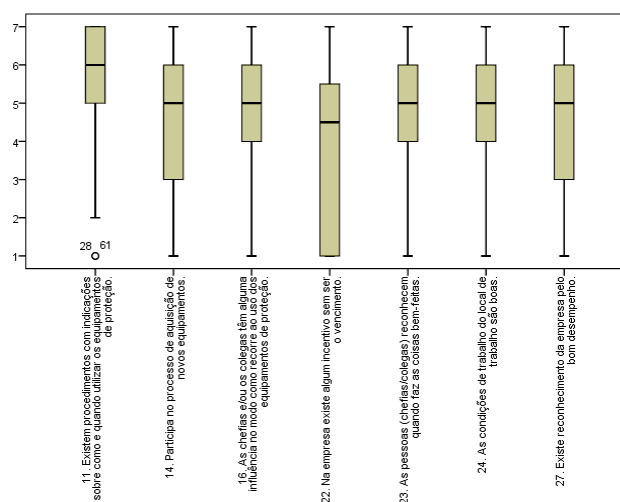
- There are procedures with indications on how and when to use the protective equipment". However, it should also be noted that there are 2 moderate *outliers* associated with individuals who "totally disagree" with this information.

The answers to the question "22 - In the company there is some incentive other than salary" show a great variability of values. Their answers show a slight negative asymmetry, and it should be noted that 50% of the answers are between the levels "I totally disagree" and "I agree".

Regarding the remaining questions "16 - Managers and/or colleagues have some influence on how you use protective equipment", "23 - People (managers/colleagues) recognize when you do things well" and "24 - Working conditions in the workplace are good" the opinions of the respondents are distributed in a similar way among themselves, with 50% of the answers being between the levels of agreement "Neither agree nor disagree" and "I agree".

As for the questions "14 - Participate in the process of acquiring new equipment" and "27 - There is recognition of the company for good performance" present similar distributions among themselves, 50% of the observations are between "I slightly disagree" and "I agree" and the median corresponds to "I slightly agree".

Chart 4 - Distribution regarding practices/measures to create value



The use of protective equipment is part of the daily life of many workers. It is known that protective

equipment is intended to protect, i.e. to reduce/control rather than prevent, risks to the health and safety of workers. Consequently, the use of protective equipment should only be considered as one of the latest features of protection/control technology for workers.

With regard to the practices/measures evaluated in this study, the existence of procedures, the relationship with colleagues, with the nature of the work and with the management stand out as higher, which refers to the current reality: people spend most of their time in the workplace and, as such, it is essential to feel satisfied and comfortable, which is stated by Zacharatos et al (2005).

In addition to having procedures for the use of protective equipment, being involved in the choice of equipment, managers being involved in the way it is used, recognising work and conditions being favourable, there must also be incentives other than salary. There must be a continuous process of eliminating or mitigating what is unsatisfactory and demotivating for the worker, as well as an awareness of the need to use the protective equipment, encouraging absenteeism, productivity and others. These same thoughts or ideas are defended by Freitas (2011) and Tatoglu (2011) not least because there is a certain parallelism between the promotion of an effort to introduce and consolidate a motivated and satisfied culture of prevention both in companies and in society.

It can be concluded that small enterprises, have a long process of evolution in the field of labour safety and PGRH. The acquisition of good practices and the implementation of security standards, requires prior knowledge of existing security flaws, which result in existing non-conformities. One of the major barriers to the implementation of good practices and standards is the high cost of implementation and monitoring, in line with what Freitas (2011) and PRONACI (2002) said.

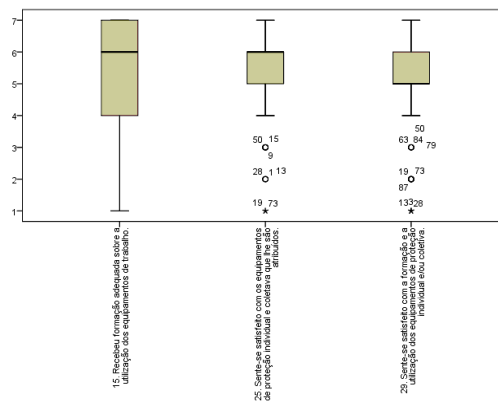
In short, it is important that each organization is aware of the satisfaction, training and implementation of good practices and measures in order to contribute to a more sustainable environment and then incorporate good practices and social responsibility into its organization. This may have a greater or lesser impact, have a greater or lesser implementation cost, what is important is that the organization implements it, and that all stakeholders feel good with the practices and remain open to evolution.

e. Which workers are best prepared for the use of protective equipment?

Regarding the workers who are better prepared for the use of the protective equipment, the highest degree of agreement of the respondents is associated with questions "15 - Has received adequate training on the use of work equipment" and "25 - Is satisfied with the personal protective equipment and collected that is assigned to him/her", it should be noted that in question 15, the answers present a negative asymmetry between the categories "I slightly agree" and "I agree". It should also be mentioned the existence of 8 lower *outliers* (6 moderate and 2 severe). However, respondents from these two groups are very much in agreement with this, since they reveal a median level of satisfaction "I agree".

Regarding the question "29 - Are you satisfied with the training and use of personal and/or collective protective equipment" the opinions of the respondents are distributed in a positive asymmetrical way between the categories "I slightly agree" and "I agree", being worth mentioning the existence of 10 lower *outliers* (7 moderate and 3 severe). However, the respondents in this group are very much in agreement with this, as they reveal a median level of satisfaction "I slightly agree".

Chart 5 - Distribution of the best prepared workers



When asked which workers were best prepared for the use of protective equipment, the answers are very unanswerable. In this sense, the agreement of the participants when questioned about access to training is stressed, reinforcing the idea that they are included in the choice of protective equipment. There is more disagreement on the satisfaction with the training given for the use of

protective equipment, which leads to a desire that the training is not effective.

In this sense it is important for the organisation to be able to understand the needs of the workers and whether the training it has been developing will meet the company's objectives and the needs of the workers. If it does not benefit both parties it will not bear fruit, it will not create value, it will not work, it will just be an investment with no return. It is therefore important that employees always participate in these choices and that their decision has an influence on the selection of the organization. As Miguel (2012) indicates, "The final choice should be made based on a careful analysis of the job, because this participation of employees leads to greater motivation for the use of PPE".

Even the ILO (2006) 'stresses the importance of social dialogue and full participation of all stakeholders in this area as a prerequisite for successful management of the national occupational safety and health system', i.e. all stakeholders must be trained in order to be successful in worker safety.

Any worker who has to use PPE or collective has to receive training on the correct use and maintenance. Periodically, refresher training is advisable for both workers and their supervisors / direct supervisors. The training should focus on the following points: when it is necessary to use the protective equipment; what risk(s) this protective equipment poses; what PPE is required; how to wear, put on, adjust, or use the protective equipment; limitations of the PPE in question; care, maintenance, useful life and destination of the protective equipment used; demonstration that the worker understands the training and is able to use the protective equipment properly.

It is true that the best way to avoid episodes of accidents at work or occupational diseases is by investing in safety at work. Prevention is, above all, a tool that acts to avoid future problems. Whether you are an engineer, a work safety technician or any other individual, everyone should aim at improving the statistics of non-accidents and not occupational diseases.

CONCLUSION

This article aims at understanding which Human Resources Management practices influence training and job satisfaction in the use of individual or collective protection equipment. To this

end, this analysis was based on a set of variables satisfaction and training.

The empirical work involved the development of two strands in order to meet the proposed objectives. From this empirical study some results were drawn. Firstly, it was found that workers generally value human resource practices and the satisfaction of training. It was also possible to conclude that protective equipment may not be a discomfort for those who wear it.

The theme "Human Resource Management practices: Influence of Training and Job Satisfaction on the Use of Personal or Collective Protective Equipment" is not a widely studied theme despite the fact that organisations are made up of workers, and it is therefore crucial that they remain trained and satisfied with their work in order to build on their strengths. The existing studies focus mainly on training and job satisfaction, as HRM practice not focusing in general on any element such as protective equipment. It was also noticed that there are practical situations in the companies that carry out the important situations and that there are situations of recognition in the organization.

REFERENCES

Alcobia, P. (2001). Atitudes e satisfação no trabalho. In J.M.C. Ferreira, J. Neves e A. Caetano (coord.), *Manual de Psicossociologia das Organizações*, 281 - 306. Lisboa: McGraw-Hill.

Aziri, B. (2011). Job Satisfaction: A Literature Review. *Management Research And Practice*, 77-88.

Becker, B., Huselid, M., & Ulrich, D. (2001). *The HR scorecard: linking people, strategy and performance*. Harvard Business School Press.

Bonache, J., & Cabrera, Á. (2004). *Dirección Estratégica de Personas - Evidencias y perspectivas para el siglo XXI*. Madrid: Pearson Edición, S.A.

Caetano, A. (2007). *Avaliação da Formação – Estudos em Organizações Portuguesas*. Lisboa: Livros Horizonte.

Caetano, A., Passos, A., Cal, M., Carmo, M., Alcobia, P., Alves, P., & Bogalho, S. (2000). *Mudança Organizacional e Gestão de Recursos Humanos*. Lisboa: Direção Editorial do IEFP.

Camara, P. B., Guerra, P. B., & Rodrigues, J. V. (2013). *Humanator XXL - Recursos Humanos e Sucesso Empresarial*. Lisboa : Dom Quixote.

Carmo, H., & Ferreira, M. M. (1998). *Metodologia da Investigação*. Lisboa: Universidade Aberta.

Chiavenato, I. (1987). *Administração de Recursos Humanos*. São Paulo: Atlas.

- Clarke, S. (1998). Safety culture on the U.K. railway network. *Work and Stress*, 285-292.
- Cordeiro, J. (2008). Gestão de Recursos Humanos e Estratégias Empresariais: Os quadros superiores das Empresas do Sector de Componentes para automóvel. *Tese de doutoramento em Sociologia do Trabalho, das Organizações e do Emprego*. Lisboa: ISCTE.
- Cunha, M., Rego, A., Cunha, R., & Cabral-Cardoso, C. (2006). Manual de Comportamento Organizacional e Gestão. 4.^a Edição. Editora RH.
- Delery, J., & Doty, D. (1996). Modes of theorizing in strategic human resources management: Tests of universalistic, contingency, and configurational performance predictions. 802-835. *Academy of Management Journal*.
- Drucker, P. (2000). *Management Challenges for the 21st Century*. Elsevier.
- Esteves, M. T. (2008). Práticas de gestão de recursos humanos e atitudes e comportamentos de trabalho: Estudo de caso no sector bancário português. Lisboa : Instituto Superior de Ciências do Trabalho e da Empresa.
- Ferreira, J., Neves, J., & Caetano, A. (2001). Manual de Psicossociologia das Organizações. Lisboa: Mc Graw Hill.
- Fonseca, S. (2012). A formar vencedores todos os dias. 334. Examo.
- Freitas, L. C. (2011). *Manual de Segurança e Saúde do Trabalho* (2^a Edição ed.). Lisboa: Edições Sílabo, Lda.
- Gomes, J., Cunha, P., Rego, A., Cunha, R., C.-C. C., & Marques, C. (2008). *Manual de Gestão de Pessoas e do Capital Humano*. Lisboa: Sílabo.
- Hassard, J. (2012). Rethinking the Hawthorne Studies: The Western Electric research in its social, political and historical context. 14-31. *Human Relations* 65.
- Herzberg, F. (2003). One More Time: How Do You Motivate Employees? *Harvard business review*. 3-11.
- Lima, M. L., Monteiro, M. B., & Vala, J. (1995). A satisfação organizacional: Confronto de modelos. In J. Vala, M. B. Monteiro, L. Lima e A. Caetano (Orgs). *Psicologia Social das Organizações: Estudos em empresas portuguesas*, 2^o ed., 101 - 122. Oeiras: Celta Editora.
- Locke, E. A. (1983). The Nature and Causes of Job Satisfaction. In Dunnette, M. D. (ed.), *Handbook of Industrial and Organizational Psychology: 1297-1349*. New York: John Wiley & Sons.
- Lopes, A., & Picado, L. (2010). Conceção e Gestão da Formação Profissional Contínua: Da qualificação individual à Aprendizagem Organizacional. Mangualde: Edições Pedagogo.
- Marques, J. (2010). Uma história da gestão de recursos humanos. *Revista Dirigir*, pp. 20-23.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*.
- Meignant, A. (2003). A Gestão da Formação. 2^o Edição . Lisboa: Dom Quixote.

- Miguel, A. S. (2012). *Manual de Higiene e Segurança do Trabalho*. Porto: Porto Editora.
- Neves, J. (2000). *Gestão de Recursos Humanos: Evolução do Problema em Termos dos Conceitos e das Práticas*. Lisboa: RH Editores.
- Nicholson, N. (1995). *Encyclopedic Dictionary of Organizational Behavior*. Massachusetts: Blackwell Publishers.
- Nunes, F. M. (2010). *Segurança e Higiene do Trabalho. Manual Técnico*. Lisboa : Cooptécnica Gustave Eiffel.
- OIT, O. I. (2006). Convenção OIT n. 187. *Convenção sobre o quadro promocional para a segurança e saúde no trabalho*.
- Pfeffer, J. (1988). *The human equation: building profits by putting people first*. Boston: Harvard Business School Press.
- Prata, F. L. (2014). A avaliação do impacto da formação: o caso da Clínica de S. Cristóvão. *Mestrado em Gestão de Recursos Humanos e Análise Organizacional, Universidade Lusíada de Lisboa - Faculdade Ciências da Economia e da Empresa*. Lisboa .
- PRONACI. (2002). Ficha Técnica . *Higiene e Segurança no Trabalho* . Edição AEP.
- Rafael, M., & Lima, R. (2012). Qualidade de vida no trabalho e práticas de gestão de recursos humanos: Relações com a satisfação profissional. *Papel apresentado no VII Simpósio sobre Comportamento Organizacional*. Lisboa.
- Sainsaulieu, R. (1977). *L'Identité au Travail*. Paris: Éd. FNSP.
- Santos, A. M., & Popadiuk, S. (2010). A Gestão do Conhecimento e a Capacidade de Competição. *Contextus Revista Contemporânea de Economia e Gestão*, pp. 21-32.
- Siqueira, M., Tamayo, Á., & Bastos, A. (2008). *Medidas do Comportamento Organizacional: ferramentas de diagnóstico e de gestão*. Porto Alegre: Artmed.
- Sousa, M. J., Duarte, T., Sanches, P. G., & Gomes, J. (2006). *Gestão de Recursos Humanos. Métodos e Práticas. 10ª Edição*. Lisboa : LIDEL – Edições Técnicas, Lda.
- Souza, I., Reche, P., & Sachuk, M. (2013). O comprometimento organizacional e a satisfação no trabalho em funcionários de um hospital da cidade de Umurama. *Qualit@s Revista Eletrônica, Vol. 14, n.º 1*.
- Tatoglu, F. Y. (2011). The Relationships between Human Capital Investment and Economic Growth: A Panel Error Correction Model. *Journal of Economic and Social Research, Vol. 13 (1)* , 77-90.
- Veiga, R. (2009). *Segurança, Higiene e Segurança no Trabalho*. Veriag-Dashofer.
- Vergara, S. C. (2006). *Projectos e relatórios de pesquisa em administração*. São Paulo: Atlas .
- Zacharatos, A., Barling, J., & D'Iverson, R. (2005). High-performance work systems and occupational safety. pp. 77-93. Obtido de *Journal of Applied Psychology*.