

Human resources' responses in a specific organizational environment in the Greek public sector. Optimizing techniques and proposals

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ABSTRACT Human resources is considered the main capital for every organization. Employee beliefs are forming each organization branding. **Purpose:** The present study was based on a questionnaire aiming to detect employee satisfaction formatting a certain employee branding. Newer techniques were used to analyze and discuss personnel behavior, that reflects the total performance of a Greek public sector organization. **Approach:** 80 people answered a questionnaire in order to measure to measure employee loyalty and their likelihood to recommend the company as a place to work, in only two selected employees (as a truth test). Also, a classification tree-based algorithm was performed to form groups of employees. **Findings:** Main results indicate that the certain organization has problems according to the opinions of employees, especially in transparency, justice and proper exploitation of human resources. This reflects in an attrition tension.

KEYWORDS: Personnel, machine learning, employee branding

I. INTRODUCTION

Employee branding (often used interchangeably with employer branding) is the strategic process of interpreting how current employees and potential candidates perceive a company's culture, values and reputation [1]. It transforms staff into brand ambassadors, boosting retention, attracting top talent, and building a 3x more credible reputation compared to corporate messaging. Many other concepts are relative to human resources behavior and exploitation. Human resources functions are described as six distinct functions: 1) Strategic Planning, 2) Recruitment and Deployment, 3) Training and Development, 4) Performance Management, 5) Compensation Management, and 6) Human Relations Management [2]. Also, newer techniques incorporating machine learning and artificial intelligence can be used to support staff recruitment and deployment [3,4,5,6]. They can analyze big data sets to find suitable candidates, evaluate resumes, and help predict a candidate's suitability for a particular position. Nowadays, professionals and consultants in all over the world are urging their companies to invest more in sophisticated HR information systems to collect and analyze employee data. Many organizations are building integrated systems to analyze employee-related data, and already have implemented real-time systems in new and innovative ways. Modern techniques like machine learning and artificial intelligence can support recruitment in many ways [3,4,5,6,7], such as CV Analysis, Skills Assessment, Interview Management, and Eligibility, using appropriate algorithms based on decision trees.

Newer techniques to evaluate organizations and employee satisfaction include frequent, short pulse surveys, detailed analytics on goal completion, and continuous feedback loops like 360-degree reviews and anonymous suggestion systems. Pampouktsi, as a post-doctor researcher on human resources summarize these techniques as:

For employee satisfaction

- Pulse surveys/questionnaires: Conduct short, frequent surveys to gauge employee sentiment on specific, timely topics, such as a recent change or a specific aspect of the work environment.

- **Data Analytics:** Use data analytics on metrics like goal completion rates to understand engagement and enthusiasm. This can include tracking progress towards individual and company-wide objectives.
- **Real-time feedback:** Implement systems for continuous, real-time feedback, such as peer recognition channels or anonymous suggestion boxes, to foster a culture of open communication.
- **360-Degree feedback:** Collect evaluations from managers, peers, and self-assessments to provide a comprehensive view of an employee's performance and identify areas for growth.
- **Onboarding procedures:** Send surveys to new hires to understand their initial experiences, allowing for early optimization of the onboarding process and early identification of potential issues.
- **Exit interviews:** Systematically conduct exit interviews with departing employees to gather valuable, honest feedback about why they are leaving and what the organization can improve.
- **Machine Learning:** Application of proper algorithms to classify answers.
- **Neuro-emotions techniques:** Use of EEG devices in order to record emotions of candidates or employees [8].

For organizational evaluation

- **Integration of metrics:** Combine quantitative data from tools like performance management software with qualitative data from surveys and interviews to get a holistic view.
- **Goal Alignment Tracking:** Evaluate how individual and team goals connect to and support overarching company goals. This can be done through cascading goal models and analytics platforms.
- **Employee Net Promoter Score (eNPS):** Use of eNPS to measure employee loyalty and their likelihood to recommend the company as a place to work.
- **Work Life & Wellness Metrics:** Integrate surveys that specifically ask about work-life balance and track participation in wellness programs to gauge overall well-being.
- **Absence and Turnover rating:** Continuously monitor absence and turnover rates, as they can be leading indicators of employee dissatisfaction and potential organizational issues.

In the present study we were focused on a certain Greek Public Organization to record employees' opinion. Additional techniques were applied to support answers of a well-stated questionnaire. Employee branding was properly analyzed, by combined techniques, as a first step for better understanding the concept. Some novel ideas were initiated.

II. METHODOLOGY

The investigation covered one public organization from Greek public sector and answers of eighty employees were collected according to GDPR. The questionnaire used was formed according to the Common Assessment Framework (CAF, a Total Quality Management-TQM tool: <https://www.eupan.eu/wp-content/uploads/2023/03/CAF-2020-English.pdf>) principles and it was an obligation after the official decision made by the Regional Governor of the organization (<https://diavgeia.gov.gr/>) and the permission of Executive Secretary. Setting main objectives and defining the improvement process, is a key-step for every organization, and it involves:

- **Self-assessment:** The organization assesses its current situation
- **Diagnosis:** Strengths and areas for improvement are identified
- **Action Plan Definition:** Clear targets are set to improve the identified weaknesses
- **Implementation & Review:** Targets are monitored and reviewed (in annual basis process)

In total, 80 people answered initially the questionnaire and collected data analysis was made in SPSS 13.0 and Google Forms Sheet, and also an additional innovative approach has been performed using Neuroscience metrics (via an EEG device) to indicative measure employee loyalty and recommendation tension for the organization as a place to work, in only two selected employees (as a truth test and an initial calibration [8]). Also, a classification tree-based algorithm was performed to form groups of employees [3,4,5,6,9], using as attributes the 38 questions-answers collected from the specific questionnaire in the WEKA software (Waikato University, ver. 3). Random-Tree algorithm was used here because it fits best to our data. An additional learning core set of 10 repetitive random answers was formed as the learning test sample. Ten more answers were later added to serve as validation set. Thus, in total answers were 100 to form the final set to be analyzed.

III. RESULTS, FIGURES AND TABLES

Questionnaire answers on 38 questions are presented in Figures 1-38, and most of them included 80 employee answers, except demographic data. Original questions are also included in Greek. In Fig. 1, many employees feel comfort in their job and that is enhanced by data in Fig. 2, where they found office environment very positive. In Fig. 3, the organization provides all necessary tools to better accomplish their work. In Fig. 4, it seems that the organization has no formal policy to manage family and professional life. In Fig. 5, well-being is

around the average, but in Fig. 6, employees are encouraged to rest for a while, according to their needs. Stress conditions are often within the organization as presented in Fig. 7. Employees' duties are mainly well defined (Fig. 8), and current responsibilities fit to their skills (Fig. 9), except for a nearly 18% that answered negatively. New challenges is not a priority in the organization (Fig. 10). Employees do not always feel fulfilment by their job (Fig. 11), and they are rather disappointed by the authority level they possess (Fig. 12). No specific given directions, seems to be a rule (Fig. 13) and employees believe that the level of the authority may contribute better to their work (Fig. 14). In many cases, communication with their direct head is good but over 25% have some problems in this area (Fig. 15). Most of them have no direct communication with the leadership of the organization (Fig. 16). Feedback is generally good (Fig. 17) and in Fig. 18 there is a nearly equal belief that it is easy or difficult to express opinions or proposals, it seems that some people are free to do so, but other might not. Many employees believe that there is no recognition about their work (Fig. 19). In Fig. 20, it is not a clear answer about the vision of the organization. In Fig. 21, people are not so satisfied with the leadership style. In Fig. 22, employees seem very satisfied about training programs, and also, they have support to improve their skills (as in Fig. 23). Employees, believe that there is no connection between their qualifications and their work, because of the absence of such mechanism (Fig. 24), also that they get no proper rewards according to their work (Fig. 25) and no additional benefits are properly provided (Fig. 26). In Fig. 27, it is clearly stated that there is no transparency and justice in the organization, and people also believe that motivations and awards are for only a few of them (Fig. 28). Collaboration and communication are a very good level between them (Figs. 29 and 30). Respect and equality are also in very good level (Fig. 31) and communication is free between departments (Fig. 32), and they feel free to ask for assistant (Fig. 33). Fig. 34 recorded an attrition tension among them.

Πώς θα αξιολογούσατε τη φυσική άνεση, εργονομία και ασφάλεια του χώρου εργασίας σας;
80 απαντήσεις

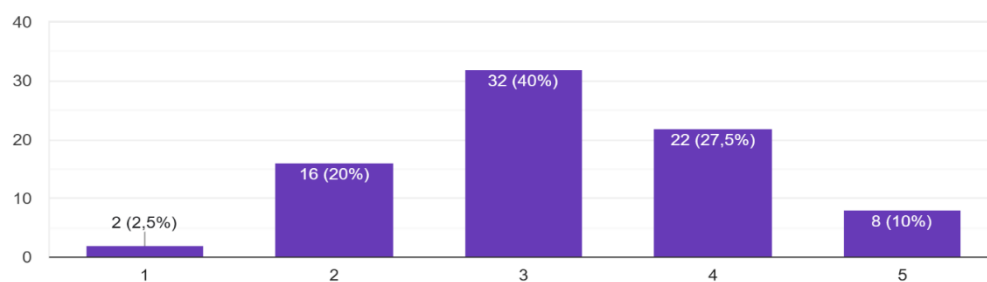


Fig. 1. Statistics on the question: How do you evaluate comfort, ergonomics and safety in your office?

Πιστεύετε ότι η ατμόσφαιρα του γραφείου προωθεί μια θετική κουλτούρα;
80 απαντήσεις

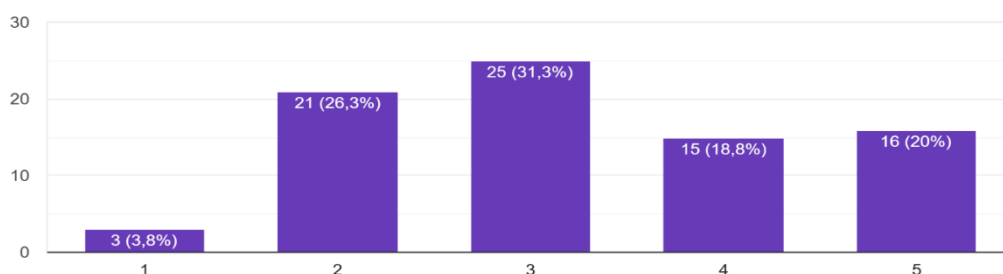


Fig. 2. Statistics on the question: Do you believe that office environment promotes a positive culture?

Σας παρέχονται τα απαραίτητα εργαλεία και πόροι για να εκτελέσετε αποτελεσματικά τη δουλειά σας;
80 απαντήσεις

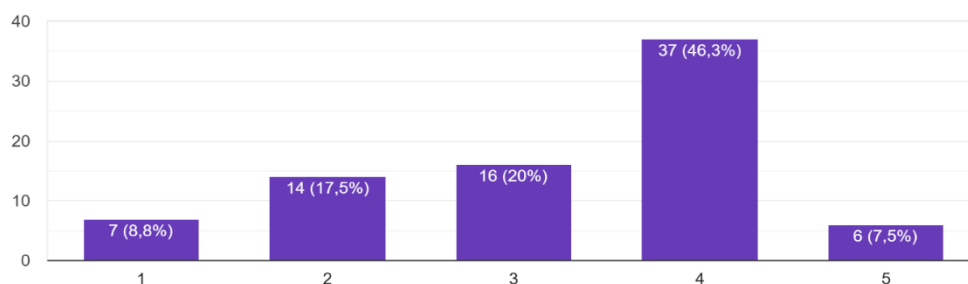


Fig. 3. Statistics on the question: Are there available tools and resources in order to accomplish your job effectively?

Ο φορέας έχει καθιερωμένη πολιτική εναρμόνισης του επαγγελματικού με τον οικογενειακό βίο;
80 απαντήσεις

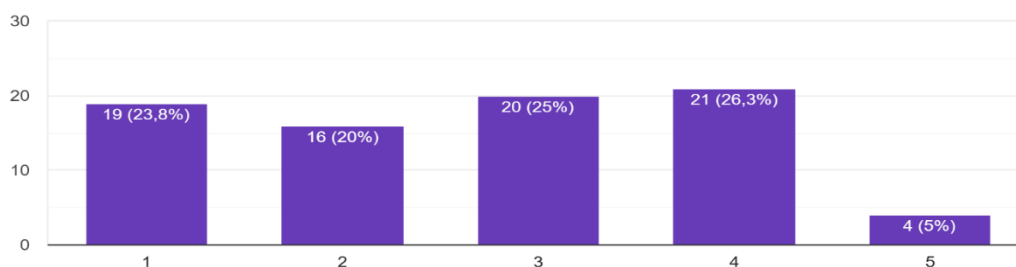


Fig. 4. Statistics on the question: Does your organization have a formal policy in order to match harmonically family and professional life?

Πόσο καλά ικανοποιεί ο οργανισμός τις ανάγκες υγείας και ευεξίας σας (π.χ. ευέλικτο ωράριο, επιλογές εξ αποστάσεως εργασίας);
80 απαντήσεις

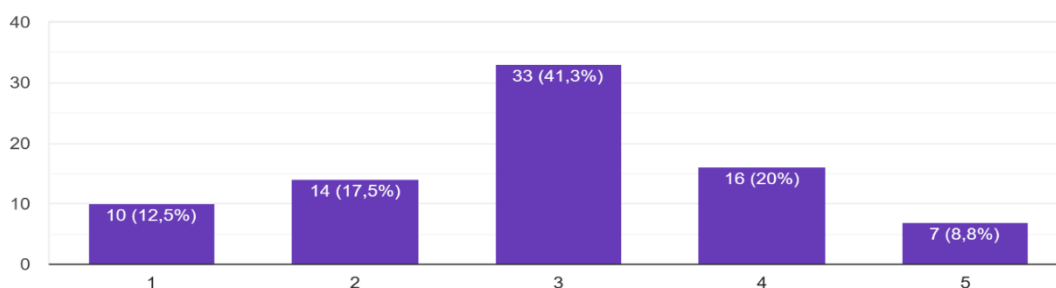


Fig. 5. Statistics on the question: In what level does your organization satisfy your health and well-being needs (flexible timetable, tele-working etc)?

Νιώθετε ενθάρρυνση να κάνετε διαλείμματα και να αποσυνδεθείτε από την εργασία όταν χρειάζεται για επαναφόρτιση;
80 απαντήσεις

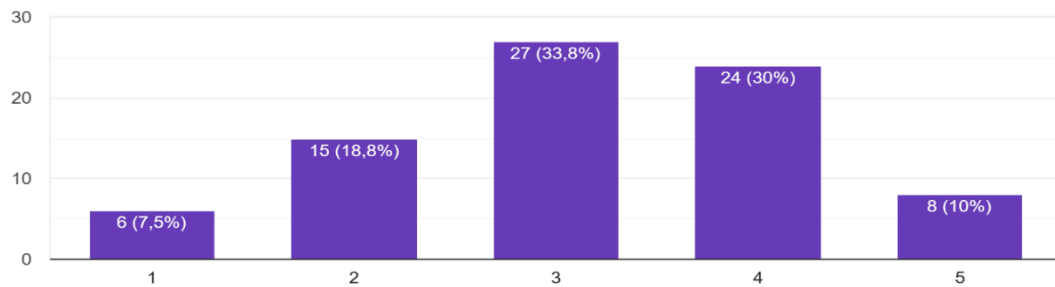


Fig. 6. Statistics on the question: Do you feel encouraged to take a break or like unbounding from your work when you need so?

Νιώθετε συχνά υπερένταση ή άγχος λόγω παραγόντων που σχετίζονται με την εργασία;
80 απαντήσεις

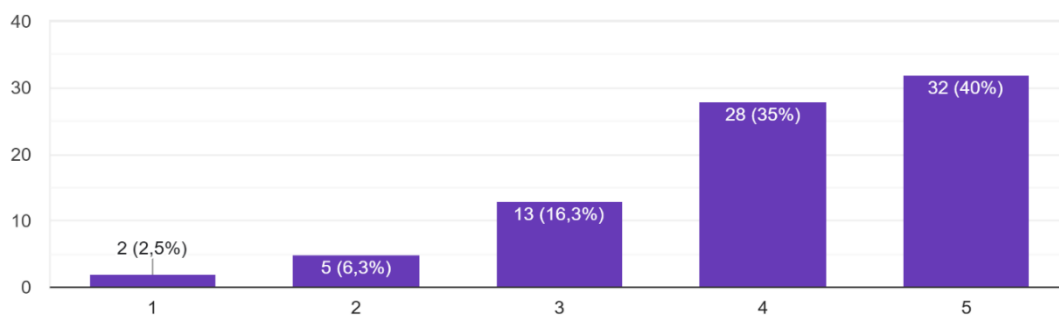


Fig. 7. Statistics on the question: Do you feel often overexertion and stress because of your job responsibilities?

Τα καθήκοντά σας είναι σαφώς καθορισμένα και σας κοινοποιούνται;
80 απαντήσεις

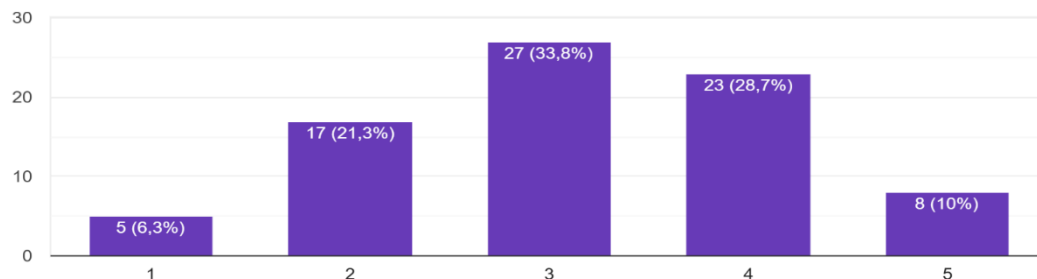


Fig. 8. Statistics on the question: Are your responsibilities and duties well defined and known/or notified?

Οι τρέχουσες εργασιακές σας ευθύνες συνάδουν με τις δεξιότητες και τα προσόντα σας;
80 απαντήσεις

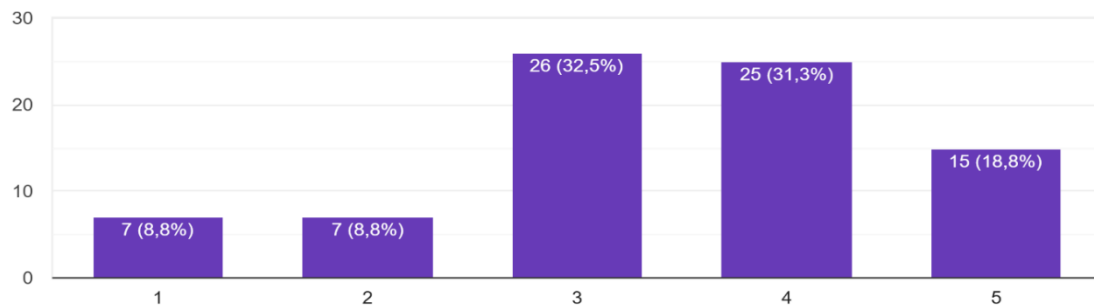


Fig. 9. Statistics on the question: Does your current responsibilities fit with your skills and qualifications?

Έχετε ευκαιρίες να αντιμετωπίσετε νέες προκλήσεις και να επεκτείνετε τις δεξιότητές σας;
80 απαντήσεις

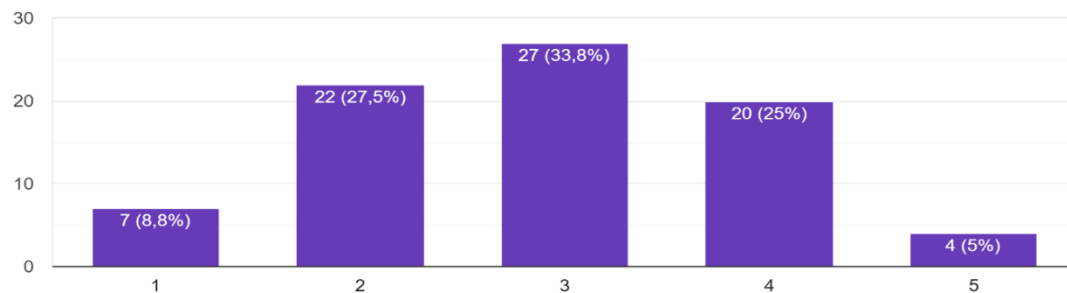


Fig. 10. Statistics on the question: Do you have the opportunities to cope with new challenges that will boost your skills?

Νιώθετε ότι η δουλειά σας παρέχει μια αίσθηση σκοπού και εκπλήρωσης;
80 απαντήσεις

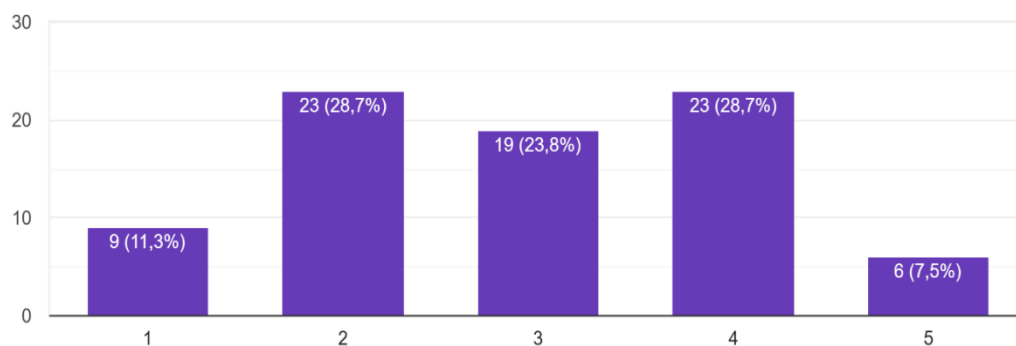


Fig. 11. Statistics on the question: Does your job provide you with purpose and fulfilment?

Είστε ικανοποιημένος/η με το επίπεδο εξουσίας λήψης αποφάσεων που έχετε στον ρόλο σας;
80 απαντήσεις

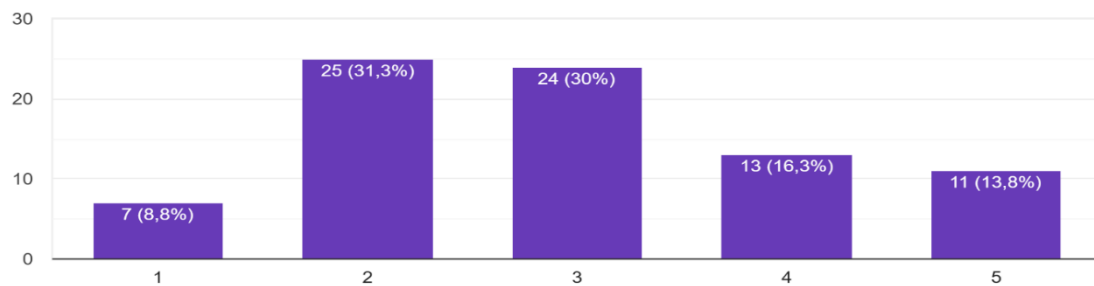


Fig. 12. Statistics on the question: Are you satisfied with your authority level on decision-making according to your role?

Σας παρέχονται σαφείς οδηγίες και προσδοκίες για τα εργασιακά σας καθήκοντα ή τα έργα σας;
80 απαντήσεις

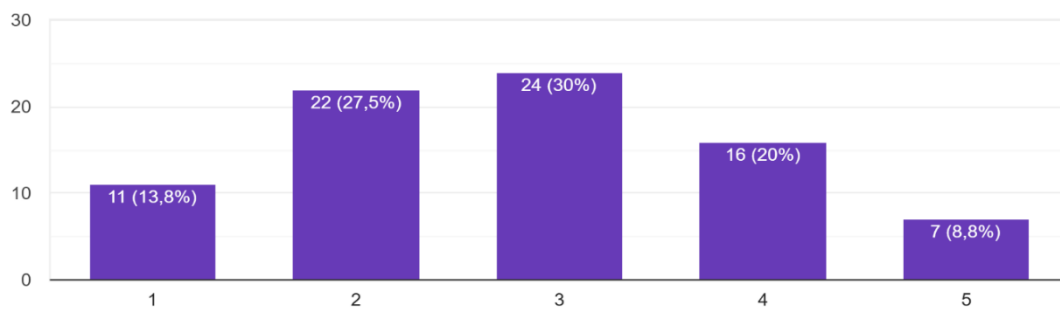


Fig. 13. Statistics on the question: Do you receive specific directions and feedback according to your responsibilities or actions?

Πόσο καλά πιστεύετε ότι οι εργασιακές σας ευθύνες συμβάλλουν στην επιτυχία και την ανάπτυξη της υπηρεσίας;
80 απαντήσεις

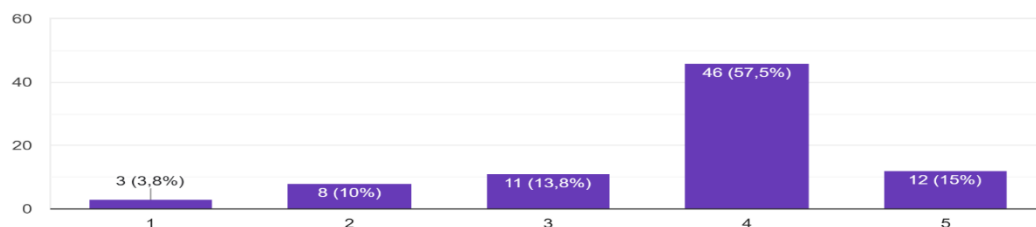


Fig. 14. Statistics on the question: At what level do you believe that your responsibilities contribute to the success and development of your service?

Πώς θα αξιολογούσατε την ποιότητα της επικοινωνίας ανάμεσα σε εσάς και τον άμεσα προϊστάμενό σας;
80 απαντήσεις

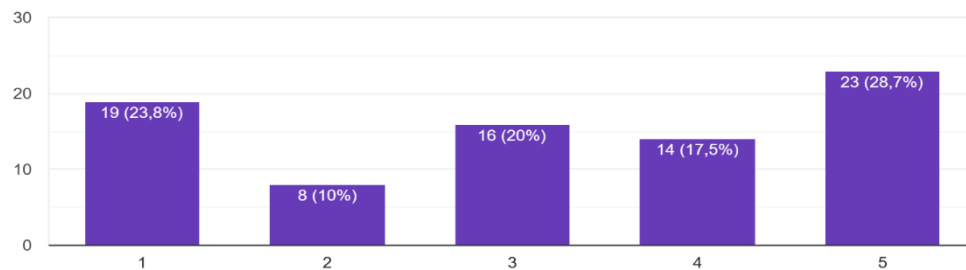


Fig. 15. Statistics on the question: How do you evaluate the communication level between you and your direct head of your service (Director, CEO, etc)?

Πώς θα αξιολογούσατε την ποιότητα της επικοινωνίας ανάμεσα σε εσάς και την ηγεσία του Οργανισμού
80 απαντήσεις

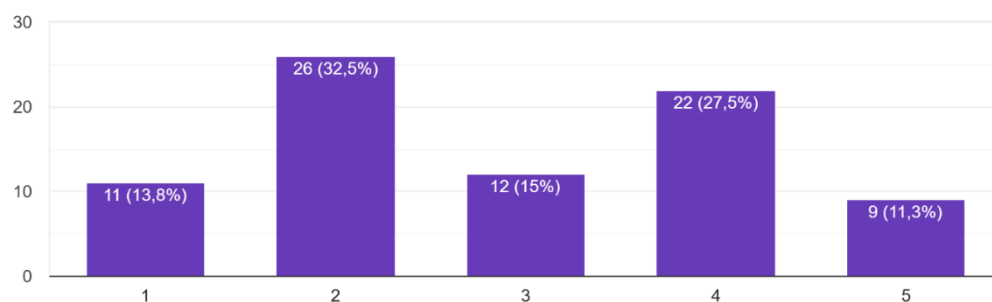


Fig. 16. Statistics on the question: How do you evaluate the communication level between you and the leadership in your organization?

Λαμβάνετε εποικοδομητική ανατροφοδότηση και καθοδήγηση σχετικά με την απόδοσή σας;
80 απαντήσεις

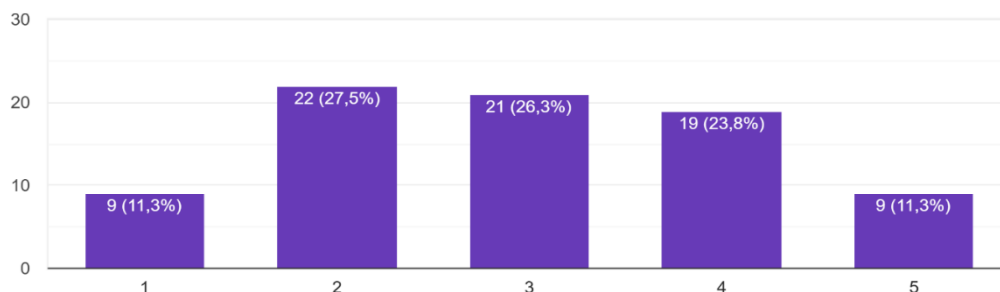


Fig. 17. Statistics on the question: Do you receive positive feedback and guidance in relation to your performance?

Σας ενθαρρύνουν να εκφράσετε τις απόψεις και τις προτάσεις σας στον προϊστάμενό σας;
80 απαντήσεις

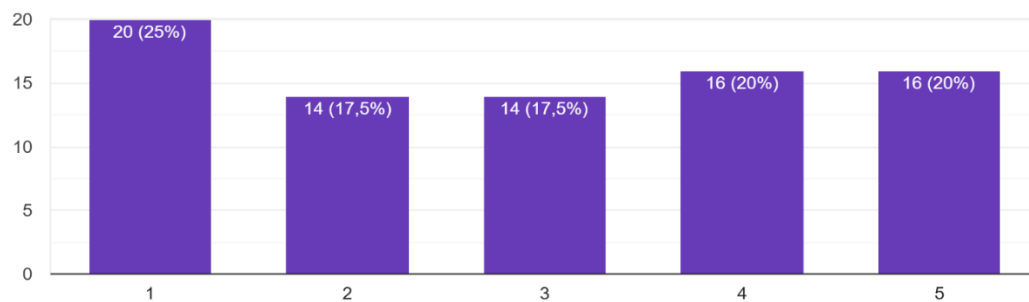


Fig. 18. Statistics on the question: Are you encouraged to express opinions and recommendations to your direct head of your service (Director, CEO, etc)?

Αισθάνεστε ότι εκτιμάται η συνεισφορά σας / αναγνωρίζονται οι προσπάθειές σας;
80 απαντήσεις

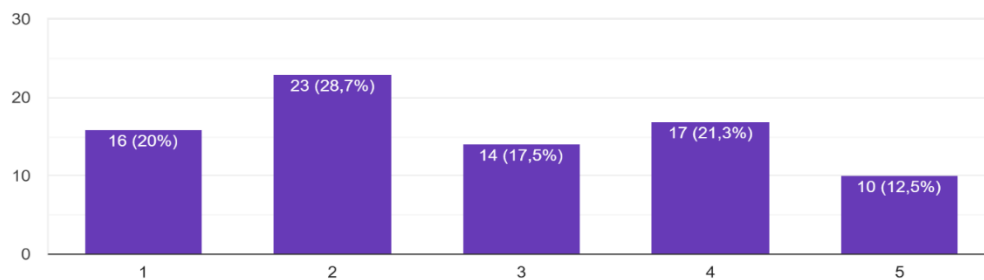


Fig. 19. Statistics on the question: Do you feel that your contribution/efforts are appreciated and recognized?

Είναι ξεκάθαρος ο προσανατολισμός και το όραμα του οργανισμού σας;
80 απαντήσεις

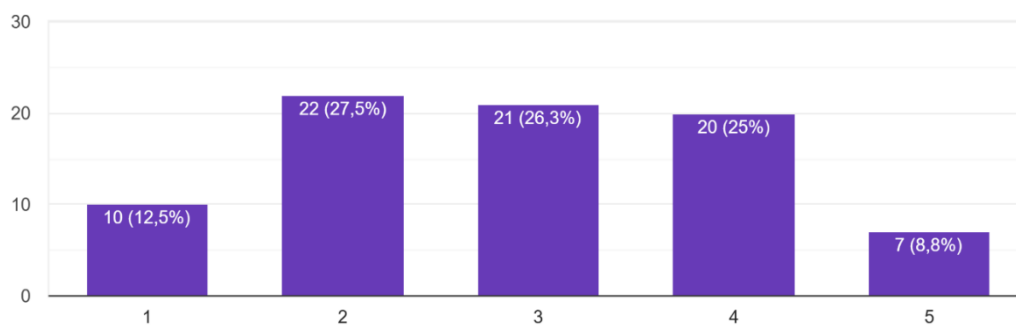


Fig. 20. Statistics on the question: Are very clear the orientation and vision of your organization?

Είστε ικανοποιημένος/η με το στυλ ηγεσίας και την προσέγγιση διαχείρισης;
80 απαντήσεις

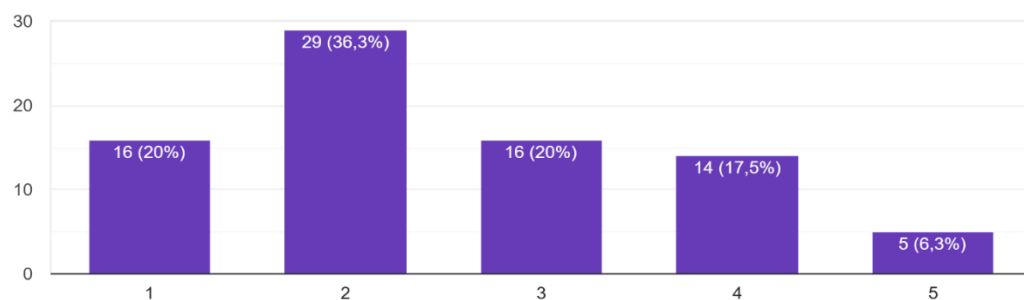


Fig. 21. Statistics on the question: Are you satisfied with the leadership style and management approach?

Πόσο ικανοποιημένοι/ες είστε με τα προγράμματα κατάρτισης και ανάπτυξης που προσφέρει ο οργανισμός;
80 απαντήσεις

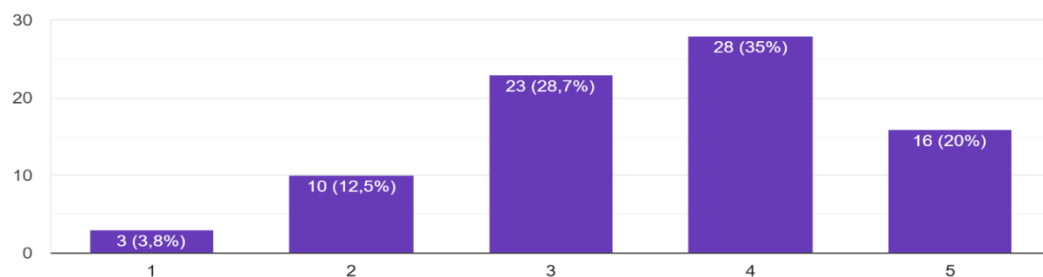


Fig. 22. Statistics on the question: How much satisfied are you in relation to the training and development programs in your organizations?

Λαμβάνετε υποστήριξη για επιδίωξη περαιτέρω εκπαίδευσης ή βελτίωσης δεξιοτήτων;
80 απαντήσεις

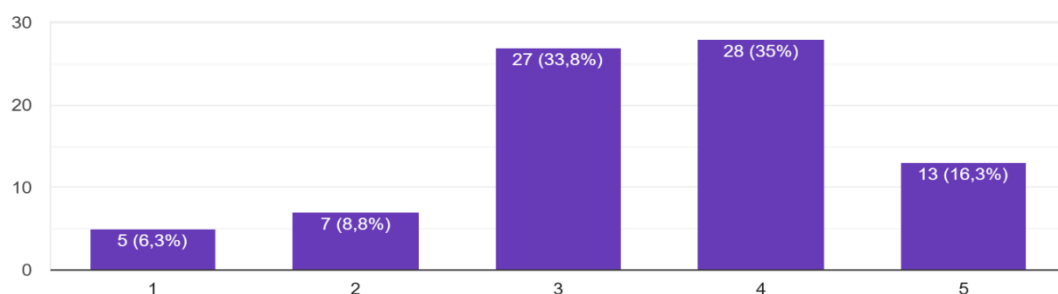


Fig. 23. Statistics on the question: Do you receive support on education or skills improvement?

Πιστεύετε ότι ο φορέας σας έχει μηχανισμό αξιοποίησης των υψηλών τυπικών προσόντων;
80 απαντήσεις

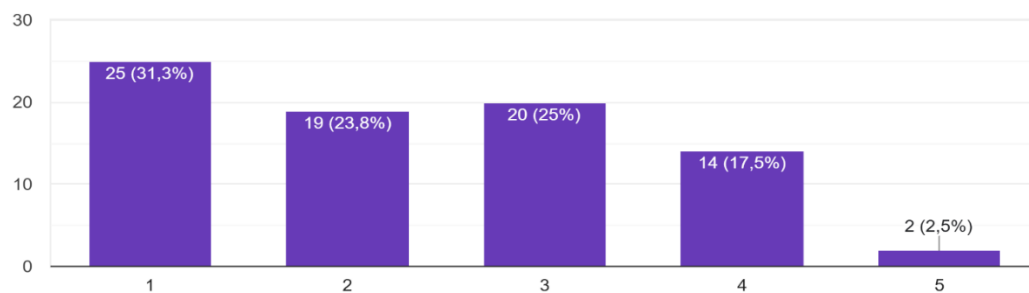


Fig. 24 Statistics on the question: Do you believe that your organization has a formal mechanism to exploit high qualifications?

Νιώθετε ότι οι συνεισφορές και τα επιτεύγματά σας ανταμείβονται κατάλληλα;
80 απαντήσεις

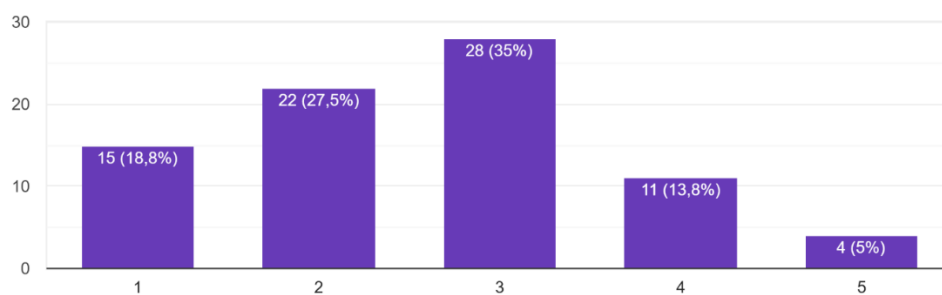


Fig. 25. Statistics on the question: Do you feel that your contribution and achievements are well rewarded?

Είναι τα πρόσθετα οφέλη που προσφέρει ο οργανισμός ολοκληρωμένα και κατάλληλα για τις ανάγκες σας;
80 απαντήσεις

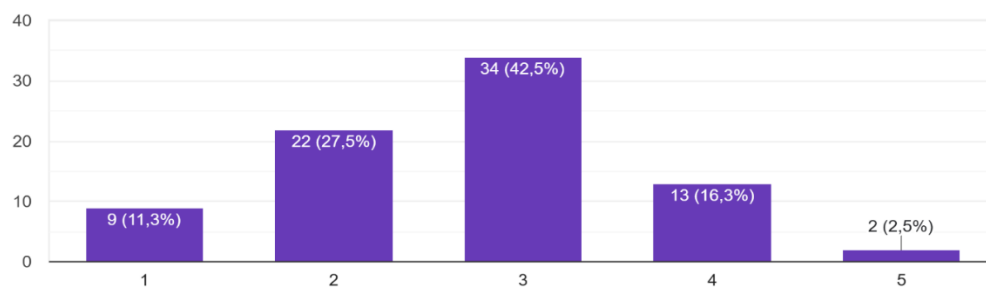


Fig. 26. Statistics on the question: Are the additional benefits that your organization offers, properly situated according to your needs?

Πώς θα αξιολογούσατε τη διαφάνεια και τη δικαιοσύνη της διαδικασίας αξιολόγησης απόδοσης και αποζημίωσης;
80 απαντήσεις

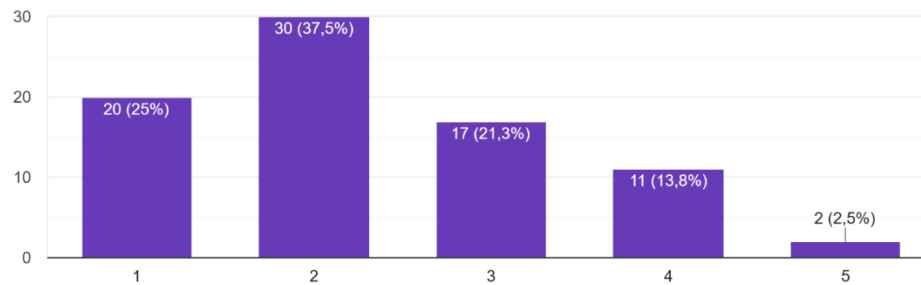


Fig. 27. Statistics on the question: Can you evaluate transparency and justice on the performance appraisal and subsequent benefits?

Είστε ικανοποιημένοι με τις ευκαιρίες για μπόνους, κίνητρα ή ανταμοιβές;
80 απαντήσεις

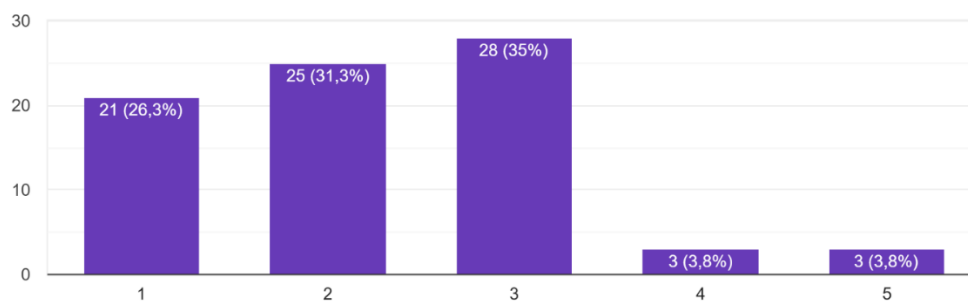


Fig. 28. Statistics on the question: Are you satisfied with bonus programs, motivations and rewards opportunities?

Πόσο καλά συνεργάζεστε και επικοινωνείτε με τους συναδέλφους σας;
80 απαντήσεις

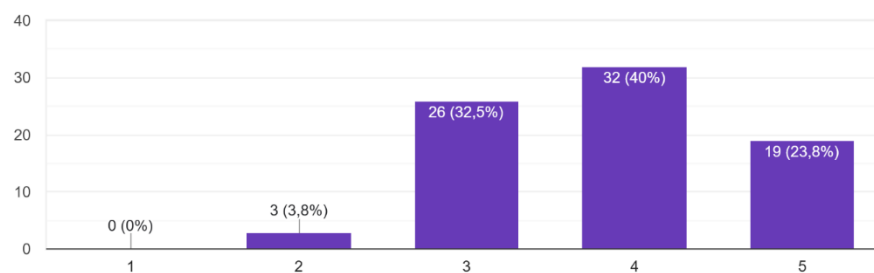


Fig. 29. Statistics on the question: Do you collaborate and communicate with your colleagues?

Νιώθετε μια αίσθηση συντροφικότητας /ομαδικής εργασίας μέσα στο τμήμα σας;
80 απαντήσεις

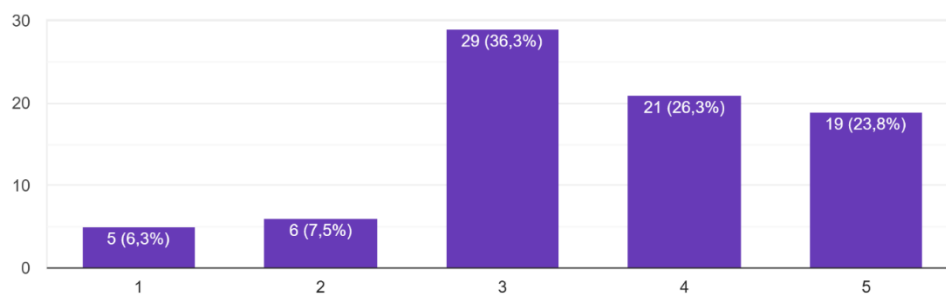


Fig. 30. Statistics on the question: Do you feel companionship and team work environment in your department?

Είστε ικανοποιημένος/η από το επίπεδο σεβασμού και συνεργασίας μεταξύ των συναδέλφων σας;
80 απαντήσεις

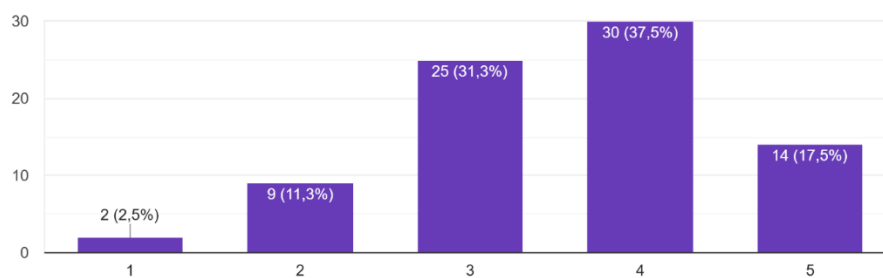


Fig. 31. Statistics on the question: Are you satisfied of the respect level and equal collaboration among your colleagues?

Έχετε ευκαιρίες να αλληλεπιδράσετε με συναδέλφους από διαφορετικά τμήματα ή ομάδες;
80 απαντήσεις

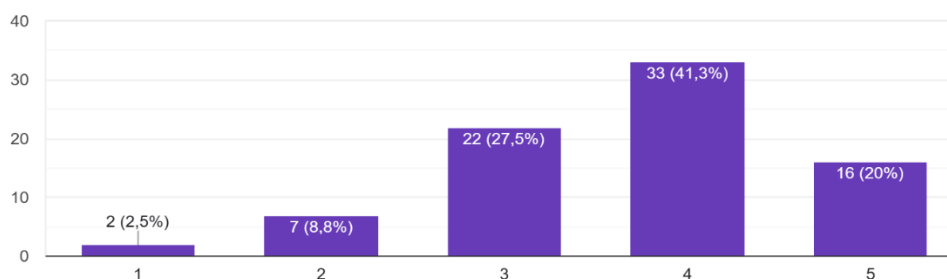


Fig. 32. Statistics on the question: Do you have the opportunities to interact with employees of different departments or working groups?

Αισθάνεστε άνετα να ζητάτε βοήθεια ή συμβουλές από τους συναδέλφους σας όταν χρειάζεται;
80 απαντήσεις

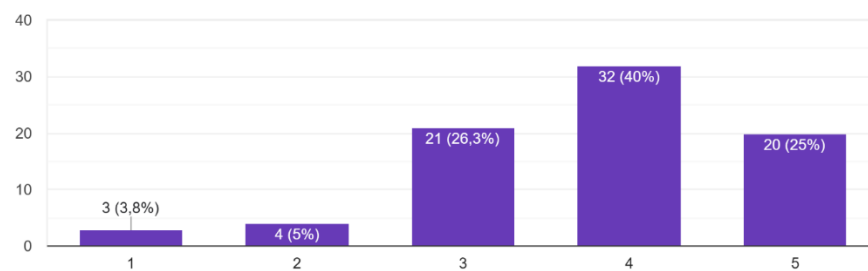


Fig. 33. Statistics on the question: Are you comfortable to ask for assistance or advices from your colleagues when you need it?

Θα σκεφτόσασταν υποβολή αίτησης στο σύστημα κινητικότητας;
80 απαντήσεις

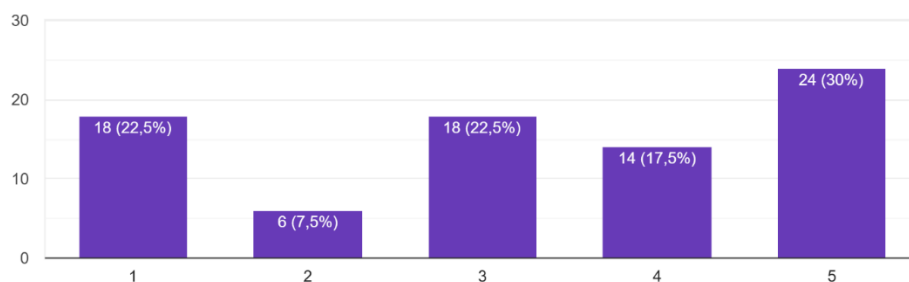


Fig. 34. Statistics on the question: Do you think of submitting an application for the mobility system?

Demographic data showed that the majority of employees belonged to an age interval between 45 and 55 years old (Fig. 35, with 51.3%), most of them were women (Fig. 36, with 54.8% and some people did not answer the question), most of them possess a post-degree title like MSc and PhD (Fig. 37, and 56.3%), and finally most of them do not have an authority position (Fig. 38, with 67.8%).

Ηλικιακή ομάδα (generations)
76 απαντήσεις

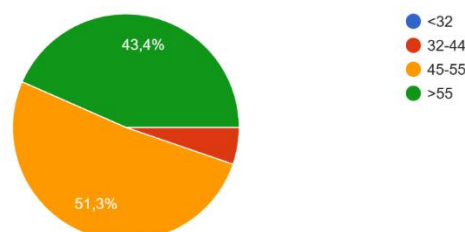


Fig. 35. Answers on the question: Your Age (<32*, 32-44, 45-55, >55 years old)

* No answers collected

Φύλο: Άνδρας, Γυναίκα, Δεν απαντώ
73 απαντήσεις

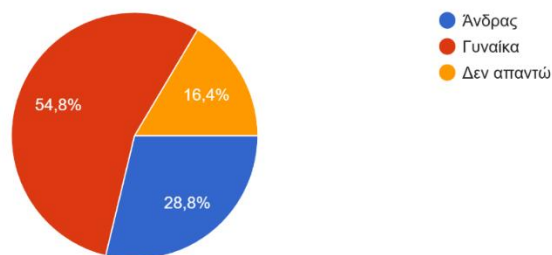


Fig. 36. Answers on the question: Your sex (Man, Woman, I do not want to answer*)

* Answers with no sex definition

Επίπεδο γνώσεων
71 απαντήσεις

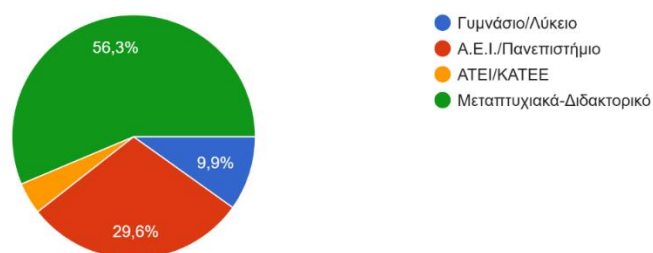


Fig. 37. Answers on the question: Education level (Secondary/High school, University*, Technical college*, Master or PhD**)

* 6th and 5th Level of Education (EC standards)

** Post Graduate Titles (7th or 8th levels)

Θέση ευθύνης
59 απαντήσεις

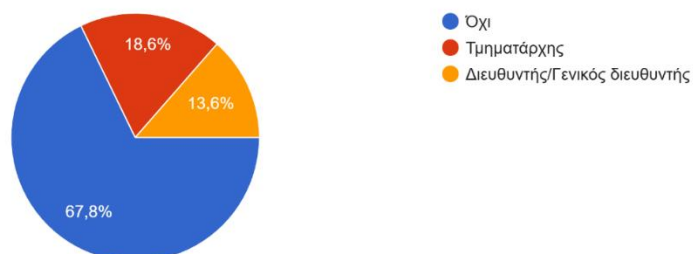


Fig. 38. Answers on the question: Authority position (None, Head of Department, Director or Director General)

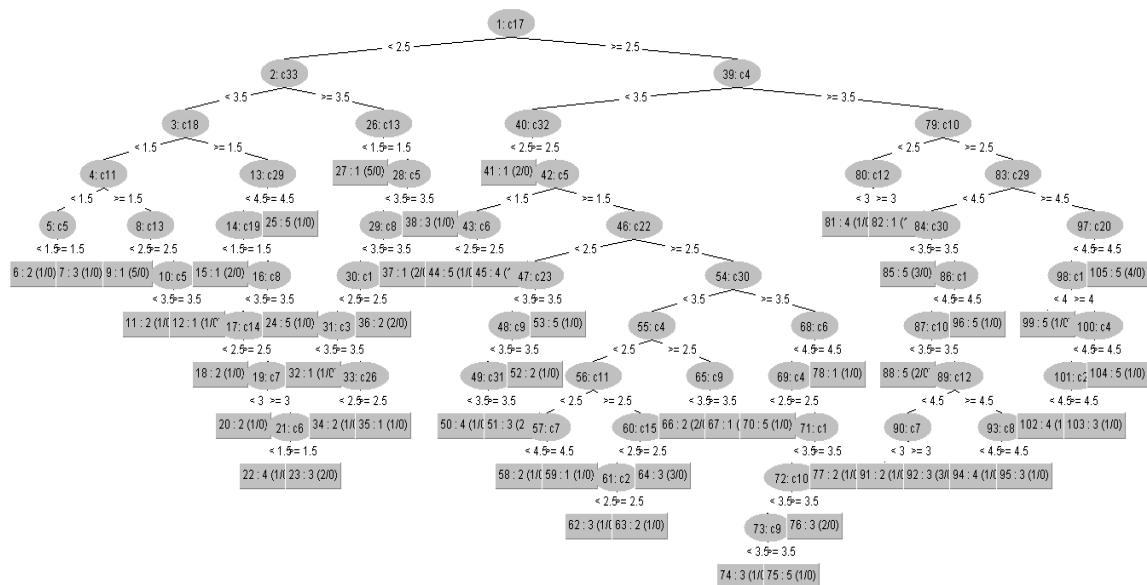


Fig. 39. A Random-Tree algorithm pattern, based on the answers

Figure 39 presents Random-Tree diagram, that shows a main classification in the centre of the tree pattern, on the left negative answers on the organization accompanied by possible attrition tension, and finally, on the right positive answers. Figure 40 presents Random-Tree parameters used in model and main tension, and also EEG device calibration test (indicative use only).

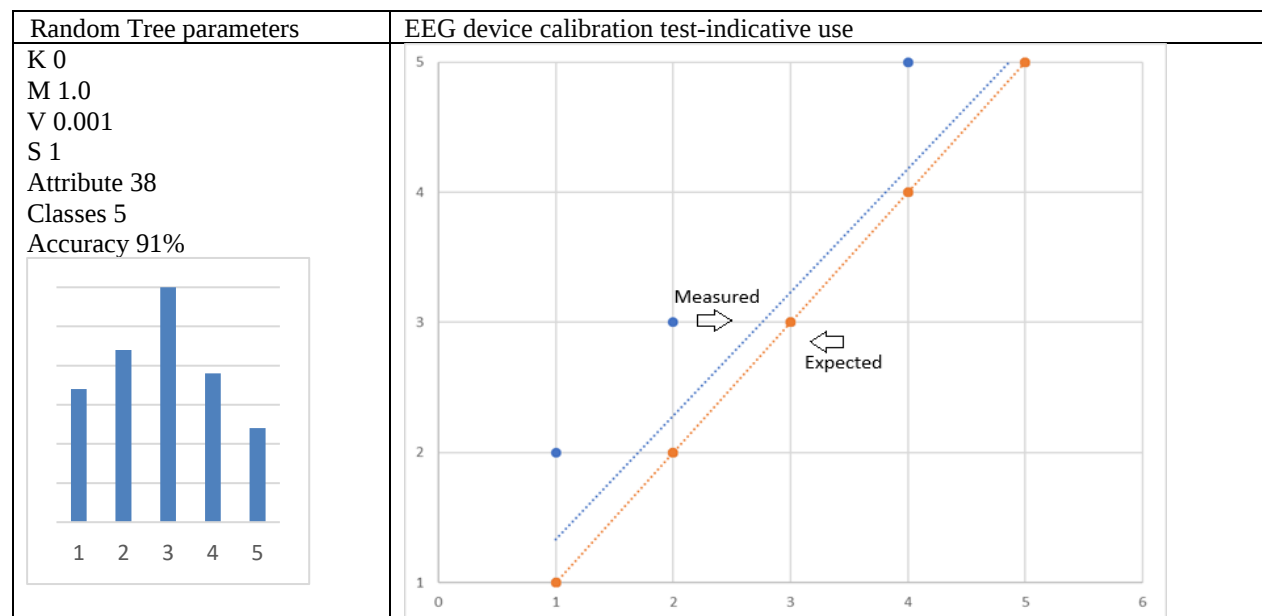


Fig. 40. Random-Tree parameters and main tension, and also EEG device calibration test

IV. DISCUSSION

In Greek public sector, approximately 500.000 civil servants are distributed in over a thousand different organizations, like ministries, municipal authorities, Regional Administrations etc (www.ypes.gr). Many other organizations are also established in private sector. Mann and O'Neil [10] reported that newer technological advances allow organizations to utilize artificial intelligence and solve complexed problems. Gal et al. [11] stated

that despite machine learning algorithms are often considered as supportive and bias-free to objective decisions, they might lead to ethical challenges. Many newer techniques are mentioned by various researchers as useful tools to Human Resources Management and Analytics [12,13,14,15,16].

In our research we recorded that many employees feel comfort in their job and they found office environment very positive and this is positive for the specific organizational image. Also, the organization provides all necessary tools to better accomplish their work. The organization has no formal policy to match family and professional life, and this fact many times is a negative element for an organization [17]. Generally, well-being is around the average, but also employees are encouraged to rest for a while, according to their needs even though stress conditions are often within the organization maybe due to lack of personnel or proper human resources (HR) policy. Employees seem very satisfied about the training programs followed by the organization, and also, they have support to improve their skills. Training and learning programs are considered very important for adding value in a regional administration public organization [18].

Employees' duties are mainly well defined and current responsibilities generally fit to their skills due to job specification standards. New challenges may not be a priority in this organization because of the lack in the vision description and explanation, and thus, employees do not always feel fulfilment by their job being rather disappointed by the authority level they possess. This is more obvious because they believe that the vision of the organization is not totally clarified and many of them also believe that there is no recognition about their work.

No specific given directions, seems to be a rule although employees follow management by objectives and they also believe that the level of the authority may contribute better to their work. This is a managerial disadvantage that needs to be corrected. In many cases, communication with their direct head is good but a considerable percentage has some problems in interaction with the authorities in head even though feedback is generally good. Most of them have no direct communication with the leadership of the organization, even though they possess an authority position and they feel difficult to express opinions or proposals. Nevertheless, some people are free to do so, but other might not, but the majority is not so satisfied with the leadership style. Additionally, employees believe that there is no connection between their qualifications and their work, because of the absence of such mechanism, and thus they get no proper rewards according to their work or additional benefits. Moreover, employees stated that there is no transparency and justice in the organization, and they also believe that motivations and awards are for only a few of them, something that remains to be proved.

Collaboration and communication are in a very good level between them and, respect and equality are also in very good level, with free communication between departments and willingness to support each other. Demographic data showed that the majority of employees belonged to an age interval between 45 and 55 years old and most of them were women because of the preference to work as civil servants. Most of them possess a post-degree title like MSc and PhD, even though most of them do not have an authority position and that is a problem of better exploitation of employees that have high qualifications.

The main result of all these is the attrition tension between among employees. This was also obvious from the Random-Tree diagram, that shows a main classification in the centre of the tree pattern, but on the left side there were observed many negative answers on the organization that may reveal an attrition tension. EEG device performed only as a calibration/truth test resulting in agreement to the questionnaire answers recorded (calibration according to Konstantinidis [8]). In similar research, in the regional administration of Crete, Stavrakaki et al. [19] depicted the important role of personnel evaluation. Their work was very useful to record employee attributes, and the elements shaping employee branding were rather optimistic and positive in their work, maybe due to sampling or the use of older evaluation methods. Many answers of them were in contrast to our research, especially when satisfaction parameters were in total considered. Employee branding, is a complex of employees' attributes and beliefs that form the organizational profile [1] and thus analysis of such data must be more comprehensive. A newer investigation on the same topics is running in another Greek public organization (a Regional Administration also), with different results in many answers, based in initial raw data, indicating different employee branding and vision approach. Thao et al. [20] used the opposite direction to form the organizational profile, stating that employer branding research has been concentrated on cultivating a favorable profile for prospective job applicants, with limited exploration of its effects on current employees. Additionally,

job satisfaction, organizational identification, and organization-related sacrifice all positively affect word-of-mouth intentions for potential applicants. These researchers supported our results that depicted weak points in the certain regional administration organization (using CAF standards), and resulted in an attrition tension.

Thus, measures to improve employee branding, as a CAF obligation, may include:

Clarification of the organizational vision and transparency/justice measures, accompanied by promoting the right people. Better HR management, and also new applications in neuroscience supported by proper algorithms, may recognize the best people for a certain job, according to job analysis [6,21,8]. Another aspect is to improve the whole machine learning procedure by using a large number of possible candidates [6]. Meta-learning may also be a possible improvement since knowledge has limitations in time and needs continuous updates [22]. According to CAF, the final result would be to provide better services to the citizens of the region, with low cost and high effectiveness (Stavrakaki et al. (2022)). Re-evaluation of employee branding may be performed in the future, based both on questionnaires and full EEG device implementation, for more accurate estimations [23].

V. CONCLUSIONS

Our results indicate that the certain organization has problems according to the opinions of employees, especially in transparency, justice and proper exploitation of human resources. The results revealed an attrition tension, that may cause problems to Human Resources availability. Proposals on rebranding employee opinion are consisted mainly of transparency/justice measures, being essential for the certain organization.

A weak point of this research may be the limited number of answers selected (80-100). Another possible weak point may be the non-repetitive investigation of such critical matters through time (even though a new investigation running in another organization). Nevertheless, a few measures for improvement must be taken, in order to prevent possible attrition. EEG devices implementation may be a valuable tool for future investigation.

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