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JOB SATISFACTION OF PILOTS IN THE AIR FORCE AS MEANS OF IMPROVING THEIR PERFORMANCE

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A thesis submitted for the degree of
Master of Science (MSc) in Management

November 2015
Thessaloniki – Greece

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November 2015
Thessaloniki - Greece

ABSTRACT

The current study deals with the subject of job satisfaction. In particular the paper examines the degree of job satisfaction amongst pilots in the air force. Moreover the subject deals with job satisfaction as means of improving the pilots' performance.

First the conceptual definition of job satisfaction is examined and the relevant theories are analyzed extensively. Then job satisfaction in the public sector is examined as well as factors influencing job satisfaction in the public sector.

The third chapter of the paper presents some basic motivational techniques such as management by objectives, Total Quality Management, the human-centered approach and connecting performance with rewards and financial incentives.

The paper then is presenting the results of the research conducted for the pilots in the Greek air force as well as the conclusions derived from them.

Key Terms: pilots, air force, job satisfaction, incentives

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CHAPTER 1: THE CONCEPTUAL FRAMEWORK OF JOB SATISFACTION

1.1 Conceptual definition of job satisfaction

In recent years, increasingly more organizations around the world are beginning to consider more systematically the level of job satisfaction of their employees. Job satisfaction is one of the most important issues of organizational psychology, mainly because it is considered inextricably linked to the mental health of the employees, and with the interest of the organizations to achieve high efficiency and in many cases, a satisfied staff. Despite the use of the term both in the scientific research and in everyday life, there is still no general agreement on what job satisfaction is, since it is a complex and multidimensional concept.

According to Khan et al. (2014), job satisfaction indicates the extent to which employees like or dislike their job. In addition, job satisfaction has been associated with the individual's value system, arguing that job satisfaction is a positive emotional state towards a specific work, arising from the assessment that this provides fulfillment or enables the fulfillment of the individual's emotional values.

Khalid et al. (2012) argue that job satisfaction is not something fixed, meaning that we cannot expect to find an employee with absolute job satisfaction, because even if there is, there is also the possibility for job satisfaction to directly reverse because of the different factors that determine it.

According to Bushra et al. (2011), satisfaction is an interaction between the system of incentives of the working environment and the individual's needs.

Eslami & Gharakhani (2012) argue that job satisfaction is the sum of the emotional reactions of an individual towards his or her job or otherwise, the emotional dimension of his or her attitudes for the job, resulting from the comparison made between the benefits obtained and those that would like to obtain.

Shanafelt et al. (2012) believe that job satisfaction is often defined as an emotional reaction of the individual towards his or her job, but is usually measured as an assessment of the work characteristics associated either internally or externally with the comparison standards. Practically, the concept of satisfaction is associated with the concept of

assessment (thinking), as to whether something is worth and therefore the stimulation of the corresponding feeling of pleasure or displeasure (feeling) and the demonstration of the corresponding behavior (do something or do not). The ternary series of the process gives the concept of attitude.

Hayes et al. (2015) believe that job satisfaction is not an emotional reaction to an emotional situation, but a positive or a negative judgment for the job. Thus, job satisfaction is a positive or a negative value judgment that one does for his or her job or a work situation.

However, the reference by Ealias & George (2012) is also important, whereby job satisfaction is the emotional element in the individual's attitude towards his or her job. Specifically, job satisfaction refers to the extent to which the individuals are satisfied by: a) the nature of their job, b) the economic remuneration, c) the working conditions, d) the promotion prospects and their career development, e) the relations with their colleagues, f) their boss, g) the procedures and policies of the organization, etc. Clearly, job satisfaction depends on the individual itself, according to the needs and the characteristics of his or her personality.

Wong & Laschinger (2013), report that satisfaction relates to the assessment of the individual as to what it is they seek from work and what they ultimately receive. By this logic, the more the needs of the individuals that are covered, the greater the satisfaction levels from their job.

Moreover, according to Millán et al., (2013), job satisfaction can be defined as the degree to which the employee is satisfied with the company's reward system. Also, the term job satisfaction is associated with the emotions and attitudes of the employees toward their work. Positive attitudes and feelings towards work indicate a high degree of job satisfaction. Similarly, negative attitudes and feelings indicate low job satisfaction.

Aronson (2014) defines job satisfaction as the set of employees' emotions and beliefs for their work. The levels of job satisfaction may vary from complete satisfaction to complete dissatisfaction. Apart from the employee attitude toward their profession as a whole, this may vary according to the different aspects of the job, such as the type of work, the colleagues, the bosses or the reward system.

1.2 Theories of job satisfaction

1.2.1 The theory of human needs prioritization

Maslow's theory (1954, op. cit. Altynbekov & Zaki, 2012) examines each human need in relation to other needs, which are classified in a hierarchical priority. According to this, a need emerges after the satisfaction of some other need that precedes in the order of hierarchy.

According to Maslow, people become active in any way in order to satisfy their needs, one of which is work. Therefore, if the managers want to satisfy their employees, they should identify their needs on the one hand and on the other to relate the realization of a task or the employee performance with the satisfaction of their needs.

According to the theory of the famous psychologist, the needs can be classified into five main categories:

Physiological - biological needs: these are the basic needs that are associated with the individual's very existence as a biological organism, such as the need for oxygen, water, food, clothing, etc. These needs are the first people try to satisfy.

Safety or security needs: these refer to the human need to feel a sense of security resulting from feelings and sense of self-preservation. These refer to permanent employment, housing, to ensuring the fulfillment of the physiological needs in the future.

Social needs: People feel the need to belong to a community, to social groups and be accepted by them. Within these needs, people create friendships, social relations, through which they win and also offer their acceptance, love, understanding, etc.. In a company, social and interpersonal contacts, friendships, and informal relations are created in general, which means that there is a framework provided for the satisfaction of the individual's socialization.

Self-esteem needs: this category includes the needs for recognition, success, prestige, appreciation and respect, both by the individual for the individual itself, and from the external environment. The employee tries to reach to the higher hierarchical levels of the organizational and the hierarchical pyramid of the company sets higher goals and tries to

make accomplishments. This level is more difficult to be satisfied than the previous levels, and causes frustration when people cannot meet these needs.

Self-realization or self-actualization needs: self-realization is the upper level of the pyramid. These needs are related to the person's "self", such as reputation, prestige, appreciation, respect, success, independence, freedom, etc. In other words, they are related with the individual's efforts to develop, perfected as a personality, to realize his dreams, expectations, and ambitions, that is to reach to a point where the individual will feel capable and that he has achieved what he considers is destined to become. It is worth noting that although the satisfaction of the remaining needs is inversely proportional to the individual's desire for them, the need of self-realization is not the case. As the individual fulfills this need, he seeks for further satisfaction.

With regard to the working environment, Maslow argues that the hierarchy of employees is not absolute but is influenced by several factors such as the personality of the individual, the organization, the team in which he is working etc. On the other hand, the directors and managers of companies must be able to recognize the needs of employees and give them the right incentives to accomplish them. Most times of course, the perceptions of the managers about the needs of the employees and their motivational factors are different from reality, resulting in their non-satisfaction and the less efficient operation (Pinder, 2014).

In total, Maslow's hierarchy of needs theory is quite attractive and tends to approach very much the human nature. However, the theory has not been fully implemented in the field of the work-related psychology and behavior (Altynbekov & Zaki, 2012).

Studies in this area have shown that not all levels of the theory of needs are supported nor the basic idea that the satisfaction of the lower levels of the hierarchy is required for the transition to a higher level (Pinder, 2014).

Nevertheless, the theoretical and historical value of Maslow's theory is undeniable and contributed to the social sciences, and served as the basis for the subsequent theories of the human-related and the organizational psychology.

1.2.2 Alderfer's Existence-Relatedness-Growth Theory (ERG)

This theory is founded on Maslow's theory of human needs, with key differences since this theory speaks of three categories of needs and that these needs do not follow the strict order of sequence advocated by Maslow (1954). Also according to Alderfer (1972 op. cit. Caulton, 2012), the non satisfaction (cancelation), for any reason, of the higher level needs (relationship and development) can cause a setback in the lower level needs, while the satisfaction of a need does not mean that this ceases to constitute an incentive, as Maslow support, but it can work incrementally to intensify it (Caulton, 2012).

The existence needs include the basic human needs, i.e. the physiological needs and the needs for safety. The relatedness needs refer to the desire of the individual to maintain significant interpersonal relationships and correspond to the third level of Maslow's needs. These include social acceptance, the feeling of "belonging" and the prestige. The last group of needs represents the person's desire for personal growth, self-fulfillment and self-realization. This category corresponds to the two higher levels of Maslow's pyramid of needs.

As regards to employees, this theory argues that the latter may wish to meet many needs simultaneously. Moreover, the lack of future prospects and promotion of the employees can bring them back to the level of the relatedness needs. The ability of the managers to identify such a situation can contribute to the satisfaction and ultimately in their transition back to the stage of the growth needs (Ramprasad, 2013).

1.2.3 Herzberg's motivation-hygiene theory

Frederick Herzberg conducted a survey in 200 fully employed engineers and accountants who worked in heavy industry organizations, and in 1959 he developed the theory of the two factors that bring satisfaction to employees and enhance their performance.

According to this theory, the aim of motivation is twofold and includes the dissatisfaction factors and the motivation factors. Herzberg calls them respectively as hygiene and motivation factors.

The first included aspects of the working environment such as the fees, the raises, the supervision, the relationships with colleagues, the policy and the management of the business, the safety and certainty in the relationship and other similar factors that do not concern this paper's content. Their characterization is because they serve basically to prevent dissatisfaction from work and not motivation to increase employee performance. For this reason they are often characterized as maintenance factors.

In the second set of factors are those linked with the nature of work and are called incentives. The motivational factors are determined according to the feelings they create or satisfy and characteristics such as the nature of work, recognition of work, accountability and promotion/progression or advancement. These factors seem to contribute to creating positive feelings of satisfaction and thus motivate people to achieve higher performance at work.

Herzberg's theory had a great impact in the practice of business management where it introduced new ideas and eliminated perceptions like the one suggesting that if the wages are improved, the supervision or the company policy this would lead the employees to achieve higher job satisfaction. According to Herzberg job satisfaction cannot be enhanced by improving some of the hygiene factors but only by enhancing some of the motivation factors. The central point of the theory of Herzberg can be summed up in the expression *"The contradictory of job satisfaction is not job dissatisfaction but the job non-satisfaction and likewise the opposite of job dissatisfaction is not job satisfaction but the job non-dissatisfaction"* (Pinder, 2014).

1.2.4 Adams' Equity theory

According to J. Stacy Adams (1963 op. cit. Pinder, 2014), employees want equal treatment compared with other colleagues. Each employee makes an imaginary scale where they place the following indicators and compare what they offer to those received from their work as well as those of other colleagues and when there is inequality they feel that there is injustice and they try to equalize them. Therefore, depending on how intense the sense of injustice is for the individual, the more he tries to normalize it by reducing his contributions or by trying to increase his earnings and vice versa.

1.2.5 Vroom's Expectancy theory

Vroom (1964 op. cit. Pinder, 2014) argued that the satisfaction derived by the individual from his work depends on his subjective perceptions related to the instrumentality of work (i.e. the belief that if he carries out some tasks then there will be specific outcomes) for the positive results towards the individual. Therefore, apart from the instrumentality, the valence of work plays a role in job satisfaction, i.e. the value of the results for the individual. If for example instrumentality increases at work, but the outcome presents a negative valence, then the employee will have reduced job satisfaction.

In particular there are three relationships:

Effort - Performance: An employee believes that there is a possibility that if he makes a certain effort then he will achieve a certain level of efficiency/performance.

Performance - reward: The employee believes that a certain performance is a lever for the desired result.

Valence of reward: It is the importance the employee attaches to the reward/result that can be achieved at work. At this point, the personal goals are connected with the needs of the employee. However it should be noted that Vroom's theory for job satisfaction was not supported satisfactorily after an empirical research.

1.2.6 Locke's goal setting theory

Locke's goal setting theory (1976 op. cit. Pinder, 2014) is based on the realization that every human action is necessary to be directed towards a goal, which is to have a purpose in order for the employee to be motivated. The basic principles of the theory of goal setting can be summarized as follows:

The attainment of a goal presupposes a clear and precise formulation and acceptance of this goal by the people that are required to achieve it.

The difficulty of a goal increases the accomplishment rates, since people tend to do more when they have to perform a difficult task, which is attributed to the feeling of satisfaction the individual feels when he achieves a difficult task.

The important factors that help to achieve a goal include the training of employees to improve their skills and increase their confidence, the participatory processes in setting goals and the financial incentives.

The advantages of the goal setting include the high performance of the workforce, the clarity of the roles and tasks in the workplace and the employee satisfaction derived when a goal is achieved. Instead the disadvantages of goal setting are the discontent of the employees when they do not achieve a goal and neglect of other tasks not related to the goal.

Besides all the other factors, the individuals should possess the skills necessary to achieve the goals assigned to them and, indeed, they have to have a self-perception of their abilities. At the same time, the individuals tend to accept with greater willingness the goals assigned to them when they feel that they will gain personal benefits (Pinder, 2014).

Barikani et al. (2012) argue that the setting of goals increases employee motivation because it helps people to focus their efforts to the right direction. When employees achieve their goals they feel proud and satisfied which results in increased motivation and lifted spirit. The theory of goal setting is implemented in many modern businesses as a motivational tool through the management by objectives.

1.2.7 Hackman & Oldham's job characteristics theory

Hackman & Oldham (1976 op. cit. Pinder, 2014) developed the theory of the two factors and introduced the model of the job characteristics, which is a different version of the theory of job enrichment.

Like Herzberg, Hackman & Oldham concluded that the "things that cause satisfaction at work are qualitatively different from those that cause dissatisfaction". The difference with Herzberg also lies in the fact that Hackman & Oldham define the significance of emotional reactions under the same conditions (Hunt, 1969 op. cit. Pinder, 2014)

Hackman (1980 op. cit. Pinder, 2014) states that job satisfaction (like motivation, performance and the rotation rate), as a result of work, is affected by five objective characteristics (Pinder, 2014):

- 1) the variety of skills, defined as the degree to which different skills are required to perform a task
- 2) the identity of the task, defined as the degree to which the job requires the creation of a separate and integrated task
- 3) the significance of the task, defined as the degree to which the job has a significant impact on the lives and work of other people
- 4) the autonomy, defined as the degree to which the job provides independence, freedom and the opportunity to the employee to plan his own work and determine the methods to be used
- 5) the feedback, which refers to the extent that the performance of the job results in the person having a direct and clear knowledge and information of the effectiveness of his performance

The higher the degree of these key characteristics, the higher the motivation of the employees and the more positive their feelings about the job (Pinder, 2014).

Finally it is worth mentioning that the model of the characteristics of the job is a theory, which, although it relates solely to job satisfaction, it is considered to be one of the most important contributions to it.

1.3 The importance of job satisfaction

But, why do people focus so much on job satisfaction? There are several approaches, depending on the focus of the company or the employee. At first, there is the humanitarian perspective under which everybody deserves to be treated reasonably and with respect. In that way, job satisfaction reflects to some extent the good treatment of the employee in the workplace. It can even be considered as a sign of wellness or good mental health. Under this approach, job satisfaction is related to the overall life satisfaction and the physical and mental health. In addition, it improves the quality of the working life of the employee and is associated negatively with heart diseases and increased stress (Cardozo et al., 2012).

Secondly, the utilitarian approach in which job satisfaction can lead to behaviors that affect the operation of the entire company (Yücel, 2012)

Yücel (2012) argues there are two approaches in the study of job satisfaction: first the global approach that addresses job satisfaction as a unique, overall feeling towards the job, and secondly, the facet approach which places the focus on the individual aspects about the job, such as the rewards (wages and bonuses), the opportunities for promotion, and the communication in the workplace.

From the organizational point of view, job satisfaction is associated with low absenteeism, the cost of which is great for any business (Bushra et al., 2011; Yücel, 2012).

Also, it is positively associated with low employee mobility (Yücel, 2012), and improved employee behavior (Pinder, 2014). Although there are many other factors related to employee mobility, satisfaction is the most important.

Increased job satisfaction also reduces the abnormal attendance at work and the frequency of accidents and is considered as the cause or the result of some positive behaviors at work, such as collaboration and the provision of quality services (Yücel, 2012; Pinder, 2014). According to Ramprasad (2013), satisfied employees learn their tasks more easily and express fewer complaints. Additionally, the high levels of satisfaction are negatively associated with the intention of employees to resign and positively to productivity.

Millán et al. (2013) report that high job satisfaction is linked to the interest of the employees for the company, the strong commitment to the company and the identification with its aims, and is negatively associated with the participation in trade unions, and to a low extent positively with performance.

1.4 Job satisfaction variables

But what makes employees feel satisfied with their job and what pushes them in having this attitude? Robbins et al. (2013) report that there have been several studies on this question, some of which relate the working environment with satisfaction, others focus on the personality, i.e. that certain types of people have a predisposition, a tendency to love their job, and others consider that there is an interaction between the environment, the personality and the job satisfaction.

1.4.1 Environmental Factors

The environmental factors that affect job satisfaction are the wages, the characteristics of the job, and the justice in the workplace (Robbins et al., 2013). According to Kabir & Parvin (2011), the wages are associated with job satisfaction, since the employees are aware of the level of the earnings they should enjoy compared with the skills and the work experience of the other colleagues. Gayathiri et al. (2013) find a positive but non-significant correlation between the remuneration and the job satisfaction. According to Johnson et al. (2015), the amount of the remuneration does not constitute an incentive, but the employees have a need to know that the system of remuneration and promotion is based on fair and equitable standards.

The findings of the research by Alber & Davia (2005) are interesting in relation to the job satisfaction for the employees among the Northern and Southern European countries where in general, the employees in northern Europe enjoy higher wages than their Southern European counterparts.

There were higher levels of job satisfaction in the countries of northern Europe, since these are characterized by a more effective harmonization between the occupational training and the fees compared with the countries of southern Europe. The above method of increasing job satisfaction is also known as knowledge based pay. In other words, employees are remunerated according to the knowledge and skills they possess and can offer not only on the basis of the work they perform. However, a basic condition in this method is that each job should be staffed with the individual that has the appropriate knowledge and skills.

According to Viñas-Bardolet (2015) the correlation between the level of the increase in earnings and job satisfaction is important. The employees, having as a reference point the remuneration of the last year, they tend to make increasing efforts to become more efficient and achieve a raise in their salaries. In other words, every year the employee tries to surpass the “standards” of his work, the level of the earnings he had set in the previous year and become better, so as to achieve an additional raise. This method is known as merit pay.

The above research is in line with the research by Barnett & Openshaw (2011), who argued that when the level of the remuneration is not the same for all employees, regardless

of the outcomes, the people that are more efficient are satisfied more from the recognition of their efforts. A prerequisite, however, for the effectiveness of this method is to establish objective employee performance evaluation criteria, since otherwise it could result in opposite effects (i.e. the employees will focus their efforts to gain the favor of their head responsible for the evaluation) (Green & Heywood, 2008).

Regarding the job characteristics, these relate to the nature and content of the job and the tasks, and according to Hackman & Oldham these are summarized in five basic components of the working life reported in the previous section. These five characteristics constitute the scope of the job.

1.4.2 Personal factors

The personal factors include both the personality and the personal characteristics of the employee and his previous experiences and values. The job satisfaction is influenced by the experiences and emotions which are experienced by the employees in their workplace and in their personal lives (Hayes et al., 2015). The pleasant experiences and positive emotions create positive attitude towards the job, and provided that other conditions are met in the workplace, they can lead to job satisfaction. There is a strong relationship between the emotional adaptability of the employees and job satisfaction. Even demographic characteristics such as education, age, gender, position, years of experience, working hours can significantly affect the degree of job satisfaction. It is observed, therefore, that job satisfaction is subjective and influenced by experiences and expectations (Pinder 2014).

CHAPTER 2: JOB SATISFACTION IN THE PUBLIC SECTOR

2.1 Studies on job satisfaction in the public sector

According to Lee and Sabharwal (2011) job satisfaction may vary for different sectors of the economy. According to Wright & Davis (2003), employees in the public sector are less satisfied than employees in the private sector.

One possible reason for this dissatisfaction can be found in the fact that while the mission of the public organizations may cover altruistic or higher employee needs, the organizational and operational structures of these organizations that involve bureaucracy, formalism and the misconceived ensuring of the legality, prevent the satisfaction of the above needs (Kaiser, 2014).

As a result of these particular working conditions employees feel less satisfied, especially in certain aspects of their job, such as autonomy, satisfaction of personal growth ambitions, utilization of their dynamics etc. (Kaiser, 2014)

Another dimension of the satisfaction felt by an employee in the public sector has to do with the motivational factors, namely how directors can motivate their employees (Khalid et al., 2012). According to the research findings by Khalid et al. (2012), employees in the public sector place greater emphasis on the security offered by their job than those in the private sector.

The further opportunity to serve the society and the public interest is more important in motivating the civil servants than employees in the private sector. Civil servants do not even care about high marks to the same extent as the employee of the private sector (Frank & Lewis, 2004).

Another research conducted by Brewer & Brewer (2011) studied the differences in motivating public and private employees. They confirmed the dominant theory that employees of the private sector give greater value to the financial rewards. The direct economic benefits are not so important for employees in the public sector. It was observed that the salary as an incentive has great power in motivating employees and senior executives in the private sector, unlike the civil servants who do not expect increased salaries to work with all their strength. They concluded that civil servants are not motivated

by external, monetary incentives, but by internal incentives and especially the sense of duty and self-fulfillment.

It was also found that civil servants prefer more the safe and stable working environment. When the working environment is supportive of their work, namely when they can work in a friendly environment with a warm and harmonious climate under reciprocity and respect is of greater value in their motivation. Then they are more motivated and perform more. Finally, according to the same research, the investigation of the above differences in relation to motivation are significant because it was found that the differences in motivating individuals are not so affected by age, sex or educational level, but rather from the area of their work, private or public sector (Brewer & Brewer, 2011).

It is observed, therefore, that although the external factors, such as payments and promotions, exercise a strong motivational power on the employees in general, this is not the case in the public sector since the director cannot reward an outstanding job performance with bonuses or other financial rewards, but can only make a reference in the employee's annual assessment for outstanding performance. On the contrary, other factors, mainly intrinsic such as the deepest desire to make a difference, to influence public affairs, or the sense of responsibility and integrity are the main drivers of incentive of employees in the public sector (Khalid et al., 2012)

For that reason, it is a myth that the civil servants are not motivated and because of this do not work hard as their respective colleagues in the private sector. What happens is that they are motivated by different incentives arising from the nature of work and the general environment and the conditions of the public sector's operation. Therefore, the job satisfaction of civil servants depends on how they perceive the environment and working conditions themselves, which differ greatly from the environment and the conditions in the private enterprises (Fisman, et al., 2007).

2.2 Factors influencing job satisfaction in the public sector

At the current time, more and more public bodies focus on mechanisms aimed at increasing the satisfaction of their employees. Although much is known about the processes

and mechanisms of job satisfaction in the private sector, little is known about the determinants of job satisfaction in the public sector (Wright & Davis, 2003).

The work environment is determined by two variables: the characteristics of the job and the employment context. The job characteristics describe whether specific aspects of everyday work contribute to the development and cultivation of important psychological dimensions of it, such as the degree of significance of the work, which affects and assists the mental development of the employee. The variables of the employment context, on the other, refer to the organizational structures within which the employee carries out his daily tasks, such as the rewards system of the organization, the goals or the degree of the standardization of the work (Wright & Davis, 2003).

It is obvious that both the job characteristics and the employment context are the external factors that are not directly affected by the employee, but from the chain of command and the management system of the organization. The degree and the extent, where the administrative hierarchy creates a favorable climate to support the work of an employee, predisposes the employee to be positive, indifferent or even negative in the performance of the work. In short, the working environment in conjunction with the employment context creates the attitudes towards the job that affect the job satisfaction (Khalid et al., 2012).

2.3 Research on job satisfaction factors in the Greek public sector

In the Greek public sector the research on job satisfaction of employees is limited. In their article regarding the determinants of performance, Papalexandris & Bourantas (1999) present the results of a research conducted in 1189 employees in Ministries, Public organizations, Public Enterprises and Private Enterprises.

They found that the public sector is lagging behind the private regarding the motivation of the human resources. This lagging is not due to the non-connection of the performance with the financial rewards but to other factors such as (Papalexandri & Bourantas, 1999):

- The characteristics of the content of work and particularly the variety and importance of the tasks, the performance autonomy, the information regarding the results, the confusion and conflict of roles, policies and procedures.

- The climate in the public sector, and in particular the non-recognition of the hetero-determined effectiveness, the special favors, and partisanship: rivalry downward.

- The quality of the leadership of the immediate superiors of all hierarchical levels and the orientation of actions to achieve objectives.

One could argue that a vicious cycle responsible for the low levels of work performance prevails in the public organizations. That their environment attracts people with certain characteristics that do not support a positive attitude and behavior, which then negatively affect their job performance (Papalexandri & Bourantas, 1999).

Another research by Manolopoulos (2008), which involved 454 employees of public services shows that a combination of internal and external rewards plays an important role in their motivation. In other words, though the financial reward is a strong driving force, intrinsic motivation such as creative work, recognition and autonomy at work, seem to contribute to increased job satisfaction.

In addition, individual skills and demographic characteristics determine the motivation of civil servants. Noteworthy finding of the above research is that an increasing percentage of employees with higher education, and/or experience in the private sector and the free profession, tend to be motivated in the same way as the private sector employees, i.e. with external incentives and monetary rewards (Manolopoulos, 2008).

Also, as shown by the results of another research conducted in the Municipality of Athens in 2008 (Koutras & Sachinidis, 2009), the leadership style plays an important role in the degree of motivation of civil servants. According to the research results, in order for the modern leader to strengthen the motivation of his subordinates, he must get rid of the strict, bureaucratic method of exercising the administration and support the teamwork, the commitment to the vision, the introduction of changes, the trust and justice.

It is observed that although the important role of the working environment has been highlighted, as well as the characteristics of the job in influencing the job satisfaction, little

has been done towards the investigation of the effects of interdependence and interaction between these variables.

2.4 Theoretical job satisfaction measurement model in the public sector by Wright & Davis

The model of Wright & Davis (2003) attempts to link the aspects of the working environment that are considered particularly prevalent in the public sector with specific job characteristics that significantly affect job satisfaction. It takes into account three variables of the working environment: the clarity of the organizational objectives, the procedural constraints and the organizational objectives, while on the side of the job characteristics it examines four variables: the clarity of the job role, the feedback, the variety of activities and the development of the human potential. In the following, there will be a further analysis of these determinants of job satisfaction in the public sector.

2.4.1 The job characteristics

Research studies (Voon et al., 2011; Turkyilmaz et al., 2011; Jung, 2014) have investigated the interaction between job characteristics and job satisfaction in the public sector. The activities an employee carries out during the performance of his work can be considered as the job characteristics. In other words, the job characteristics involve all the different responsibilities that make up his professional life.

Four such job characteristics are included in Wright & Davis's (2003) model:

Variety of activities: As a job characteristic, the variety of activities refers to the degree of predictability of the work required to be carried out by the employee on a daily basis. In other words, it considers whether the tasks undertaken by an employee on a daily basis are identical or different and require a variety of skills.

Employees in positions with a variety of activities that allows them to spread their range of job skills in many different aspects of their working life do not perceive their job as a monotonous routine and enjoy high levels of job satisfaction.

It is expected, therefore, that the variety of activities shows a positive correlation with job satisfaction. Of course, the former is particularly important for employee motivation by the hierarchy of a public organization (Wright & Davis, 2003).

Clarity of the job role: The clarity of the job roles concerns the employee's perception regarding the need to clarify the different activities that make up his job role, the importance of these activities and the opportunity to self-assess the success or failure in the performance of these activities. Earlier studies have demonstrated the positive contribution of clarity the working role in increasing job satisfaction (Hassan, 2013).

As employees understand clearly what their respective heads expect from them, the possibility to successfully perform their tasks increases, thereby increasing and job satisfaction. Therefore, a positive correlation between the clarity of the job role and the job satisfaction is expected (Wright & Davis, 2003).

Human Resources Development: The human resources development concerns the employee's perception regarding the opportunities the working environment offers for further learning, training and development. Human resources development programs help to maintain high employee morale while reducing the chances of error, thus increasing the productivity of the organization (Sundstrom et al., 2015).

By extension, and in light of the above, the human resource development programs contribute by increasing the job satisfaction while reducing the job stress that comes from the lack of sufficient knowledge about the job objective. In other words, employees feel that the organization invests on them through these programs, a fact that increases their job satisfaction (Bratton & Gold, 2012).

Especially today and due to the dynamics of the working environment, organizations are required not only to apply human resource development programs but to adapt them constantly in order for these programs to align with the new work conditions. In conclusion, it is expected to observe a positive correlation between the development of human resources and the job satisfaction (Wright & Davis, 2003).

Feedback: Employees have the need to get information from their superiors, colleagues or even customers on the effectiveness of their work. This information is provided either through daily guidance and discussions with their superiors, or through

periodic meetings evaluating the performance of employees. The feedback process not only provides guidelines to employees, but also contributes to the development of the appropriate skills for their job role. In other words, the feedback may play the role of the practical training (on-the-job training), as well as contribute to the definition of the responsibilities of the employee in relation to the objectives of the organization and his future course within the organization. Therefore, a positive correlation between the feedback process and job satisfaction is expected (Wright & Davis, 2003).

2.4.2 The work environment

Unlike the job characteristics which have a direct impact on the employee, the work environment is related to the organization's characteristics as a whole, such as the organizational objectives or the procedural constraints within which the employee has to perform his duties (Haile, 2015). Although the determinants of the working conditions of an employee have been investigated largely, this is not the case for the relationship between the working conditions and the formation of the employees' attitudes. Some factors of the organizational environment, such as the organizational goals, may not have a direct impact on shaping the attitudes of employees; however, they exert indirect influence through their impact on the design and implementation of work. Consequently and in order to make clear the difference of job satisfaction among the private and the public sector, three variables of the working environment will be examined: the clarity of the organizational objectives, the procedural constraints and the conflict of the organizational objectives, all of which have proved to be particularly related with the public sector (Mazzucato, 2013; Hvidman & Andersen, 2014).

Organizational objectives conflict: It is a fact that public organizations perform complex social purposes by providing goods and services (in particular), which are difficult to value in economic terms of price and profit.

Additionally, since the funds managed by the public sector originate mostly from the state budget, the requirements for the fair, legal and transparent allocation and management of these are reasonably raised. As a result of the lack of motivation corresponding to these private organizations (profit maximization) and the significant

influence on these from external and particularly political interests, conflicting objectives are often presented within. This existence of conflicting objectives within the public bodies results in creating ambiguous expectations regarding the productivity of these organizations, a fact that leads to the imposition of more and more procedural constraints on the employees' activities (Mazzucato, 2013; Brown & Osborne , 2012).

Therefore, the public bodies that face a high degree of organizational objectives conflict tend to confuse their employees regarding the priorities and goals they are required to fulfill. Thus, it is expected that the conflict of organizational objectives will show a positive correlation with both the existence of procedural constraints and a negative correlation with the clarity of the organizational objectives (Khalid et al., 2012). Additionally, due to the confusion brought about to the employees, it is expected to present a negative correlation with job satisfaction.

Procedural constraints: The procedural constraints refer to the extent that employees feel limited by the organizational rules. High levels of procedural constraints could have a significant effect on the above variables affecting job satisfaction. Organizations that adopt rigid organization and operation regulations may seriously restrict the creativity of their employees, resulting in employees to perceive their job as more boring and monotonous.

Furthermore the procedural constraints may affect the clarity of the job role. Although employees in public organizations set their goals on the basis of the existing rules and procedures, any changes to them are likely to create confusion about the expected work results. Therefore, the procedural constraints are expected to present a negative correlation with employee satisfaction, particularly through their impact on the various activities and the clarity of the job role (Wright & Davis, 2003; Kaiser, 2014)

Clarity of organizational objectives: The clarity of the organizational objectives reflects the degree to which employees believe they have understood or are able to clarify the direction, objectives and performance of the institute. Similarly, as in the case of the procedural constraints, the clarity of the organizational objectives has a significant impact on the variables that influence job satisfaction. A clear picture of the organizational objectives enables the heads of the various departments to make effective assessments about the performance of their employees. Similarly, the more understood the organizational objectives and priorities are, the more likely it is for the organization to adopt a clear

development strategy for the workforce and the objectives that must be achieved. This is achieved through targeted training and skills development that prepares the employees to exploit the opportunities presented to them within the organization. So, it is expected that the clarity of the organizational objectives will present a positive correlation with job satisfaction, mainly through the influence exercised on feedback and the human resources development (Wright & Davis, 2003; Kaiser, 2014).

Positive psychology

The study of positive emotions includes the study of positive psychology, a relatively new discipline. Positive psychology is a branch of psychology that studies the virtues that strengthen individuals and make their societies to flourish. Positive psychologists seek to find the gifts and talents of individuals, but also to make life more beautiful, and not only to treat mental illness. This approach has generated much interest around the topic of positive psychology and in 2006, a course at the Harvard University entitled "Positive Psychology" was declared as the most popular course of the semester.

Many humanist psychologists, such as Abraham Maslow, Carl Rogers, and Erich Fromm, developed theories and practices implicating human happiness. Today, theories of human of success developed from these humanist psychologists have found empirical support in studies by positive psychologists. Some of the researchers of positive psychology are the following: Sonja Lyubomirsky, Martin Seligman, Ed Diener, Mihaly Csikszentmihalyi, CR Snyder, Christopher Peterson, Barbara Fredrickson, Donald Clifton, Albert Bandura, Shelley Taylor, Charles S. Carver, Michael F. Scheier, Carol Dweck and Jonathan Haidt.

Martin Seligman, one of the founders of positive psychology, in his book "Authentic Happiness" described that happiness consists of positive emotions and positive actions. Generally, positive psychology has three main purposes: positive emotions, positive individual characteristics and positive institutions.

Understanding positive emotions entails the study of the agreement with the past, of pleasure in the present and hope for the future. Understanding positive individual characteristics includes the study of virtues such as the ability to love, to work, ability to show compassion, to be flexible, to be creative and inquisitive, to show integrity, self-awareness, self-control, wisdom and moderation. Understanding the positive institutions

involves the study to achieve better communities in relation to justice, privacy, teamwork, proper upbringing, work ethics, leadership, goal setting and tolerance.

2.5 Practical implementation of Positive Psychology

Positive psychology, the main element of which is the positive feeling and its proper management, has many practical applications in everyday life with many positive effects on individuals, personal and professional life and interpersonal relationships. Among the many studies on positive emotions, we often come across the many studies of Fredrickson, the researcher who deals predominantly with positive emotions.

One of Barbara Fredrickson's studies dealt with happiness, interest, peacefulness, awe, amusement, pride and other emotions of this kind that only last for a few seconds or minutes. Fredrickson examines the way we can change our thoughts and deeds for the better. What she found is, for example, that when we are under the influence of positive emotions our awareness expands. Fredrickson argued that when we experience positive emotions we are literally seeing more and that our peripheral vision expands. In contrast, negative emotions limit our thinking.

Another finding by Fredrickson has to do with people who increasingly have more positive emotions, leading them to develop closer contacts with others, become more resilient, less depressed and more satisfied with life than those who do not do something to experience positive emotions more often.

Of course, we should not conclude that it is necessary for anyone to strive for a state of constant mental euphoria. Even milder positive emotions can have a positive impact on the positive development of the individual, according to Fredrickson. Nor should we reach the conclusion that negative emotions should be banned and deleted. In fact this would be unhealthy. Fredrickson suggests that it is a kind of prescription, according to which, we all need at least three positive emotions on average to revive us from every negative feeling that brings us down psychologically. She resulted to this ratio of positivity in the study she carried out with a colleague which was published in 2005. According to Fredrickson, there are several ways of modifying this ratio.

This may happen either by increasing positive emotions or reducing the negative emotions or by doing both. Furthermore, there is a correlation between experiencing

positive emotions and prolongation of life. What emerges, in other words, through science is that feeling good is a good investment for the future.

Apart from the ratio on positivity, there are several practical ways through which we can bring positive emotions in our lives. The first way is related to relaxation techniques. These include meditation, yoga and muscle relaxation exercises. The main positive feeling created with relaxation techniques is the pleasure. Pleasure reverses the negative emotions and makes a person resistant against them.

Another way through which positive emotions can be formed is to find a positive meaning. This works in two ways. By attributing a positive value to everyday events and setting realistic goals for achievement. Another technique is to simply smile. Human brains do not distinguish the difference between a true and a false smile, so when someone smiles purportedly, the brain responds in the same way as if he was truly smiling releasing positive chemical substances. Another way through which people can reap positive emotions is by carrying out activities that please them.

Furthermore, positive emotions have a positive effect on working environments. Specifically, Michael Frese, an organizational psychology professor at the German University of Giessen, through years of research on the positive emotions, found that these feelings make individuals flourish at work. Frese introduces the concept of “active behavior” which is similar to personal initiative. His studies on employees indicate that people who demonstrate a highly active behavior at their work are more successful, earn more labor power, which means that they have more control over their work, and that their work is more complex. At the same time, they easily find work when unemployed. These findings apply to many workplaces and in many countries, according to Frese. In addition, the active behavior is beneficial in the working environment since it can promote and even increase the profits of an organization that employs individuals carrying this trait.

2.5.1 Fredrickson's Theory of Positive Emotions

The most famous theory of positive emotions is Fredrickson's “broaden and build theory”. It should be mentioned that Barbara Fredrickson is the most recognized researcher in the field of positive psychology worldwide. Fredrickson was influenced in

the development of the theory of positive emotions from the theoretical knowledge derived from research studies on the impact of negative emotions on human behavior (Oatley & Jenkins, 1996; Frida, Kuipers & Schure, 1989; Frida, 1986; Lazarus, 1991; Levenson, 1994; Tooby & Cosmides, 1990). These studies indicated that the primary characteristic of negative emotions is that they limit the individual to a specific and one-dimensional action per negative emotion (e.g. fear = escape/fleeing and anger = attack/relief).

Fredrickson began the study of positive emotions from the above findings in a research conducted in 1998 with Levenson and found that there is a significant systematic difference between positive and negative emotions. Positive emotions lead the individual that experiences them into reactions and change in behavior that are more multidimensional, ambiguous and more diverse in relation to the negative emotions.

In other words, it was scientifically proved that while the negative emotions “imprison” or narrow humans in specific behaviors and responses, the positive feelings “release” them or broaden a horizon of possible actions and behaviors.

Therefore, according to Fredrickson’s (1998) theory, positive emotions, namely joy, interest, pleasure, pride and love (although entirely distinct from each other), broaden the horizons of thinking of the people who experience them, enrich the arsenal of available actions/behaviors and enhance their personal physical, mental, social, psychological resources and strengths. Also, on a more long-term and global level, they lead to a lasting experiencing of positive emotions and a continuous expansion through a mechanism of an endless upward spiral and thus contribute to personal growth, maturity and fulfillment (Fredrickson, 1998; Fredrickson & Branigan, 2001). Additionally, positive stimuli also have the following positive effects: sharpen the attention and perception, improve cognitive capacity, motivate to action, offer the individual greater variety and quantity of physical, social, intellectual resources and stimuli, increase the production of innovative ideas, develop creativity, urge the individual to be open to new experiences and stimuli, increase the feeling of self-sufficiency of the individual, urge the individual to find radical solutions and orient towards variety and the unusual.

An equally important finding regarding the effect of experiencing positive emotions is “The Undoing Hypothesis”, which informs us that among the varied and numerous results of the action of positive emotions is that they enable the person who is

experiencing them, to combat the restrictive effects of negative emotions. In other words, the positive emotions act as an antidote and can help the individual to face negative emotions (Baron, 1976; Fredrickson, Mancuso, Branigan & Tugade, 2002; Fredrickson & Levenson, 1998; Solomon & Corbit, 1974; Wolpe, 1958).

2.5.2 Job satisfaction and positive emotions

Moods and emotions at work are the cornerstones of the emotional background of job satisfaction. There is evidence in the literature that moods relate to the overall job satisfaction. Positive and negative emotions have also been found to significantly correlate with overall job satisfaction. Another research finding has to do with the suppression of unwanted emotions, with the latter to decrease job satisfaction. Conversely, the strengthening of positive emotions maximizes job satisfaction.

Understanding the relationship between emotions and job satisfaction can be seen through: the emotional dissonance and the social interaction model. Emotional dissonance is the mismatch situation between public expression of emotions and their inner experience. In 1983, Arlie Russell Hochschild, who wrote about the emotional fatigue, coined the term of emotional dissonance to describe the difference when an individual feels something and pretends to feel something else. Another definition of emotional dissonance, especially in the workplace, has to do with a feeling that is created due to the pressure to pretend a feeling. For example, a flight attendant is expected to smile and be graceful all the time, even though when she is not feeling like it, a fact that brings her into a state of emotional dissonance. Emotional dissonance is associated with high emotional fatigue, low organizational commitment and low job satisfaction.

The second model, through which we can understand more fully the relationship between job satisfaction and positive emotions, is the model of social interaction. According to this, the emotional state of employees causes reactions from others (colleagues) during interpersonal relationships that have an impact on their job satisfaction.

2.5.3 The concept of positive emotions at work

The scientific study of emotions has brought many benefits associated with emotional positivity at work. In the case of emotional expression, the positive emotion is encouraged particularly in the working environments combined with the oppression of the negative emotion (Staw, Sutton & Pelled, 1994). Typically, Staw and colleagues (1994) demonstrated through an experiment that positive emotions have a positive effect not only because they are related to individual differences such as productivity and persistence, but also because they impact on employee relations with their colleagues. Feeling and expressing positive emotions at work leads to more normal social interactions, behaviors of offering assistance to others and to the “halo effect”, which lead to more favorable evaluations (Elfenbein, H., & Ambady, N., 2002).

2.5.4 The Affective Events Theory (AET)

Understanding emotions at work was aided considerably by the Events Affective Theory (AET) of Weiss and Cropanzano (1996). The authors introduced a cognitive model that describes how reactions at work result from the combination between the perceptions for work and the internalized standards (Judge, T., Locke, E., Durham, C., & Kluger, A., 1998). More specifically, the TAA argues that employees react emotionally to things that happen at work and that this affects their job performance and satisfaction.

The theory starts with the recognition that emotions are a response to an event that takes place at the individual workplace. The work environment includes all the elements that encompass work, namely the characteristics of work, such as the variety of tasks, the degree of autonomy, the job requirements and the conditions for expression of emotional fatigue. This environment creates events at work that may take the form of support, difficulty or both. These events at work cause positive and negative reactions. But the relationship between events and response is governed by the mood and the personality of the employee. The personality predisposes the response itself and the intensity of the response at each event. At the same time, the individual’s mood determines in turn the emotional response.

Various tests of this theory have come to the following conclusions:

- An emotional episode is actually a series of emotional experiences gathered from a single event. The emotional episode reflects both emotional and mood circles
- Job satisfaction is influenced by present emotions and past emotions surrounding the event at the workplace
- Since emotions and moods ranging in terms of variation, their impact on performance varies also
- The behaviors directed by emotion are typically shorter in duration and larger in range
- Because emotions tend not to be compatible with the behaviors required in working environments, they have a negative impact on job performance (even positive emotions such as joy and pleasure).

The Affective Events Theory offers two very important messages. First, it helps to understand job behavior, satisfaction and performance, and, secondly, assists in the fact that events and emotions at work should not be ignored, even when they are considered small because they tend to accumulate.

Operative emotional factors at work

Some of the factors that lead to the production of emotions and moods at work are the following:

- Extrinsic factors at work: possibly some of the emotions that people experience in their workplace are produced elsewhere, e.g. family problems or difficulties affect how one feels in the working environment, or vice versa in case of a smooth and pleasant family or interpersonal life, and this is reflected at the workplace.
- Intrinsic factors at work: examples include stressful or pleasant events, leadership and leaders, the characteristics of the work itself, the physical working environments, in the sense of working conditions, rewards and penalties, etc. (Brief, A., & Weiss, H., 2002).

Healthy management strategies of emotion at work

The study of emotion in the workplace has brought and can bring even more numerous and significant changes both in the workplace and in employee management.

At the same time, it favors the theoretical, research and academic level, since it marks a broad and very interesting research field, with many parameters.

The following present a summary of some techniques aimed at the sound management of the employees' emotions and the development of an emotionally healthy organization that could be a springboard to raise job satisfaction greatly.

We can divide the strategies into two categories, those concerning preventive sound management techniques of emotion and those that have to do with recovery.

- Preventive techniques: evaluation of the emotional impact of the work, creating a positive and friendly emotional climate, encouraging a positive and friendly emotional climate through wage and pension systems, selecting employees and groups based on positive emotional attitudes and employee training in emotional intelligence skills and healthy emotional expression

- Recovery techniques: culture change, environmental and work change through redesigning work and personal change through targeted training.

CHAPTER 3: BASIC MOTIVATION TECHNIQUES

There are six motivation techniques incitement: management by objectives, total quality management, human-centered approach, quality circles, the enrichment of work and rewards, which aim to improve the provided services of an organization and to increase its productivity.

3.1 Management by objectives

This is a widely used motivation technique with several positive effects. This technique is based on two main elements. The first one is the notion that in order for the management to accomplish the desired results, every employee should keep in mind his own objective based on which he will be evaluated. The second one is that the employee must have a meaningful participation in the process of setting his objectives (Bourandas 2002).

For the determination of objectives, the work and the possibilities for improvement should be taken into account (Cholevas 1995).

Employees are informed about the manner and the means to be used to achieve these objectives. Employee motivation relies on the fact that the success will be rewarded physically and on the moral satisfaction from their increased prestige and acknowledgment of their capacity (Cholevas 1995).

3.2 Total Quality Management

Total quality management was developed by Deming (wild 1995) as a new way of business organization. TQM began to be applied in 1949 by the Union of Japanese Scientists who aimed at increasing productivity. Thirty years later, TQM was introduced in America and later in Europe. Today it is considered the main line of doing business (Theodorou, 2008).

The technique of TQM introduces innovative ideas in the field of management. The basic element of this technique is the shift of the production process to the quality of products or services.

This modern model of management sets the focus of the organizations on the quality, which is the strongest consumer preference incentive (Cholevas 1995).

Quality is defined as the degree to which a product or service meets the customer's requirements. The customer's perception on the quality of a service or product changes over time, and therefore the position of the company or organization should also change according to this conception (Sarris, 1994).

Total quality management is aimed at improving the effectiveness, efficiency of flexibility and competitiveness of a company or organization as a whole.

The philosophy is contrary to the traditional practices where the quality is only focused on the control to identify and correct errors that were different from the expectations of the product or service (Sarris, 1994).

The total quality management refers to the organization and the commitment of the entire company for quality in every department, every activity, every individual and every level of the company (Sarris 1994).

The total quality management helps companies to:

- Focus only on the needs of their markets.
- Achieve high quality performance in all areas and not just the quality of products or services.
- Make simple procedures necessary to achieve quality performance.
- Continuously and critically examine all the processes in order to eliminate unproductive activities and wastage.
- Identify the improvements that need to be done and adopt performance measures.
- Comprehend fully and in detail their competition and develop an efficacious competitive strategy.
- Establish a team to address problem-solving issues, to develop good communication procedures and to recognize the good work.
- Constantly appraise the procedures so as to expand a continuous improvement strategy.

In conclusion, total quality management is a dynamic continuous process where every department and every employee, starting from managers, are working while keeping in mind to offer the best quality at the best price so that they will be able to surpass even the customer's expectations and never have to apologize for anything.

The effort of the organization applies to all employees of the organization and those who are directly involved with the client and those involved indirectly because, according to

Gower (1994), there are people in the organizations who never see or touch or have any experience about the products or services purchased by companies but they see other things, like invoices of suppliers and other documents, where a simple mistake may create a bad image.

Furthermore, Gower (1994) suggested that the employees of an organization should not ask whether they did their job well, because this question is to detect mistakes and apologize and maybe correct the mistakes. The right question that the employees of an organization that implements total quality management is to ask if they can do their work properly. This question refers to the prevention and ensuring that there will be no mistakes, that the company will not need to apologize to the customer, and that they will anticipate and exceed the expectations of the customers and will always be one step ahead of the customer's expectations.

In order for the total quality management to work as a motivation technique, it should set incentives and communicate that achieving the objective of total quality is accompanied by material and moral satisfaction. Once the combination of total quality management (TQM) with the management by objectives (MBO) and the objectives refer to the quality improvement the achievement of which is awarded materially and morally, then we have a very good motivation technique (Cholevas, 1995).

3.3 The human-centered approach

Recognizing the utmost importance of motivation to increase employee performance and productivity and with the prevailing question whether there can be a job that provides the maximum motivation to employees, Frank and Lillian Gilbreth formulated the theory of the human-centered design of work.

According to this theory, without ignoring the production processes, employees are encouraged to identify the restrictions and requirements of the production processes and to suggest ways in order to reduce or to overcome problems faced in the production process (Kyriazopoulos, Kioulafas 1994).

The human-centered approach in the design of work seeks the maximum involvement and participation of employees in the planning and execution of their work.

Thirty thousand (30,000) employees of the company AT&T, who participated in the design of work, concluded that there are six major factors that improve employee performance (Kyriazopoulos, Kioulafas 1994).

1. Completion of work from the beginning to the end. When employees are able to start from scratch and complete a part of the production process of the product, then they are happier and more efficient.

2. Regular communication with users or customers. When employees can communicate with the users of the product they made, this makes them feel unique, a feeling that motivates employees to be more efficient.

3. Use a variety of skills. Monotony and apathy from work can be alleviated when the employees use two or more skills in product manufacturing.

4. Freedom and autonomy. The sense that employees can act alone by deciding something about their own work is a motivation factor.

5. Direct feedback from the work itself. In one of AT&T's departments, employees decided to plan their work themselves in order to control it, to look for and correct their mistakes. The result was that in a work that was considered boring, the departures fell by 27% and the work that was previously done with 46 employees now only required 24.

6. Opportunities for self-improvement. When work requires employees to use their skills then their self-esteem rises and their performance increases.

3.4 Connecting performance with rewards - financial incentives

One of the first employee motivation techniques that are widely used is the connection of employee performance with rewards, financial or non-financial.

These rewards are used as a means of rewarding and recognizing employee's effort to achieve the organization's objectives. In this reward, the heads of the employees play a key role, especially since with their behavior they reward their subordinates for their success and also motivate them to further increase performance.

3.5 Financial incentives

Financial incentives are one of the most widespread ways of rewarding employees.

Financial incentives can modify the behavior of employees in the workplace. It should be noted that money is also a means of covering higher needs as well as the social needs and recognition needs, and not only the physiological needs.

One point that needs special attention in terms of financial incentives is the proper application in order not to cause problems of apparent or actual inequality and injustice. Many times, for example, the opinion of the employees is different from that of the management with regards to the amount of the rewards in relation to their performance or even the amount of the reward of their colleagues in relation to their own reward. The non-uniform and fair policy of the organization in terms of rewards relating to performance can lead to opposite results than expected (Dubrim 2004).

Financial incentives are divided into two categories, individual performance incentives and team or participations in the result.

There are five groups of financial incentives applied in daily practice and each organization, depending on the nature of the work, selects and applies one or more of the following individual incentives.

1. Productivity incentives or achieving objectives the aim of which is to increase the employee efforts and productivity.

2. Quality incentives, the aim of which is to enhance the quality of the product or services of the organization.

3. Attendance incentives, which refer to a monetary amount that the employee receives for a certain rate of attendance in a given period.

4. Improvement incentives, aimed at motivating employees to find ways to improve the production processes that affect them.

5. Behavior incentives, aimed at rewarding those employees that with their behavior increase the morale, the cooperation and the teamwork, elements necessary for the proper functioning of the organization and its further development.

3.6 Group incentives

Many times the individual performance incentives present problems in their implementation such as high cost, impossible to measure performance for each employee individually or in linking incentives to the results of the business, create tensions and

misunderstandings between employees and between the employees and the management.

These problems led to the creation of group financial incentives system depending on the objectives and the results of the company.

These group financial incentives systems have a key characteristic that apart from the basic wage of the employees, they offer additional fee based on the increases in productivity, the added value, the sales and profits of the company.

The most famous group financial incentives systems are:

The Scanlon system that refers to the improvement of the relationship between the total payroll costs to the sales and the inventory changes.

The added value system which is based on the improvement of the value so as not to spent more resources than actually needed.

The Improshare system that tries to increase employee productivity by reducing the cost of production (Bourandas 2002).

3.7 Employee stock ownership plans

Many companies offer the opportunity to their employees to purchase company shares at a discounted price as the company's offer for their performance.

This motivates employees by turning them from employees into partly company owners. Increased employee productivity will increase the value of the company which leads to an increase in the value of their shares (Dubrin 2004).

3.8 Zero Defects Quality Circles

In a time when America's space program had almost reached bottom, Philip Grosby introduced the idea of 'Zero Defects' that led to the remarkable success of the space program.

Philip Grosby transferred the quality control monitoring from the specialists into the hands of the employees. The aim was to maximize the motivation of the employees in order for them to work responsibly and with zero defects.

In this way, each employee strives to reduce or eliminate his own mistakes by preventing the rejection of his work by the special audit committee. The theory of Philip

Grosby targets the permanent high quality products through the elimination of errors occurring in the design, production, sale and services of each product (Kyriazopoulos, Kioulafas 1994).

The extension of this thinking, namely that quality and self-monitoring of employees is a factor of maximum motivation and increased productivity, as well as employee satisfaction led the American statistician W. Edwards Deming, with the support of his consultant Joseph Juran, to develop the theory of “quality circles” that was first introduced in the 50s in Japan.

This theory is based on the maximum voluntary participation of all the organization employees. Small groups of ten to fifteen people are developed in every department of the organization, who meet regularly to explore the various problems concerning their department, propose and implement solutions as well as to re-evaluate the results of their activity. In this effort there is a coordinator who assists in the organization of the department’s circles and of the various departments together. The coordinator is also responsible for the training in quality issues, identifying opportunities and methods to improve and resolve problems (Kyriazopoulos, Kioulafas 1994).

3.9 Job enrichment

Observing the results of his research, F. Herzberg developed ways of motivating employees. With the basic idea that in addition to their job duties, employees should participate in the decisions concerning the planning, organization and control of their job, he introduced the term “job enrichment”, which is divided into the “Vertical job enrichment” and the “Horizontal job enrichment”.

Vertical enrichment refers to the involvement of employees in decision-making in terms of planning, organization and control of the position the employee holds, while horizontal enrichment refers to the ability of the employee to change tasks and duties, thus taking part throughout the production process, if possible.

F. Herzberg went even further trying to pass from theory into practice by establishing some guidelines for the employees that refer to the relaxation of the supervision and the increase of the efficiency, given in the table below:

Table 3.9.1: Job Enrichment Principles according to F. Herzberg

	Job Enrichment Principles	Motivation factors
1	Remove certain mechanisms of control without of course removing the possibility for confirmation	responsibility, personal fulfillment
2	Increase the obligations of the individual to meet the requirements of their job.	responsibility, recognition
3	Give the individual a physical and complete work unit and not fragmented and detached tasks.	responsibility, fulfillment, recognition
4	Grant more power to each employee as part of their tasks and greater freedom and autonomy of action.	responsibility, fulfillment, recognition
5	Make periodical reports on work available to employees and not just to their head.	recognition
6	Assign them tasks of more variety and difficulty	development and knowledge
7	Assign to special or specialized individuals, tasks that will allow them to become experts in their work.	responsibility, development, promotions

Source: Bourandas D. (2002). "Management". Athens, p. 269.

Chapter 4 – Methodology

4.1 Research Approach

The research approach can take a deductive or inductive form. In the deductive perspective the theory is controlled mostly by the alliance of the natural scientific approach. For Mingers, and his theory (Kyriazopoulos & Samanta, 2011) “the laws give the basis for the clarification, permit us to predict phenomena, predict their appearance and consequently allow their control”.

The other state of a deductive approach is that the researcher should stay not involved with the objects he observes, which is not only so easy in practice since there are a lot of manners to innocently take on a prejudiced approach in research, from powerful convictions up to how the questions are formed (Kyriazopoulos & Samanta, 2011).

On the other hand, an inductive approach collects data and following develops the theory or is looking for the theory that best suits with the data. In addition, the inductive perspective allows the researcher to offer alternative interpretations of a particular phenomenon (Kyriazopoulos & Samanta, 2011).

This research will apply the deductive method since the researcher will not be involved in what shall be examined.

4.2 Research strategy

The most important research types are:

- **Ethnography:** Ethnography is a qualitative type of method that originates from anthropology. Ethnography tries to describe people’s perceptions on the various concepts and events within the context they take place. This qualitative research approach does not raise questions that would predetermine the answers but produces assumptions from the rich descriptions of the participants (Kyriazopoulos & Samanta, 2011). Ethnography, as a methodology, begins from the restraint of social and cultural anthropology, where the researcher needs to spend time in the field (Kyriazopoulos & Samanta, 2011).
- **Grounded theory:** This is used mainly in qualitative methods. The coding of qualitative data is one of the most important parts in the procedure of analysis. Coding means to attribute

meaning or information into blocks of data, hence it is inextricably linked to data segmentation (Kyriazopoulos & Samanta, 2011).

- **Field study:** The field study is the investigation for the largest cultural knowledge pieces. Spradley defines the field as the “symbolic category containing other categories” .Hence a field, , is a compilation of categories that shares a specific kind of relations. The researcher starts with a broad problem and collects data from open questions or discussion guide in interviews that are transferred on a copy (Kyriazopoulos & Samanta, 2011).
- **Survey research:** With this kind of research, the researcher draws information from the participants in order to record the level of their updated knowledge, interests, opinions, and their attitudes to the subject matter (Kyriazopoulos & Samanta, 2011).

The present study is a survey research because the researcher conducts a primary research to inspect the knowledge and points of view of participants on the subject under examination.

4.3 The Research Method

The research method can be either quantitative or qualitative. The quantitative research results in percentages and numbers, while the qualitative research discovers the representations credited by subjects in certain occurrences and procedures.” (Stathakopoulos, 2001).

Researchers that employ a quantitative approach initially describe the general context in which the subject of the study belongs to so as to understand the position in which people influence or are influenced by the phenomenon or behavior.

Whenever the research deals with the study of how people experience a practice and what their opinions are, when somebody investigates a new field wherever the concepts are not fully comprehended, when somebody considers if a new product is appropriate or relevant, then the methodology of the qualitative approach should be employed(Hancock et al., 2007).

This research is quantitative, since quantitative data will be collected. The Quantitative research is based on reliable, numerical and statistical measurements on the total population.

4.4 Research Techniques

The research techniques refer to the collection of primary and secondary data. The primary data are collected through conducting primary research, which can be either qualitative or quantitative. The primary data can be collected through questionnaires or interviews (Tomaras, 2000).

The secondary data can be collected through a literature search, which can also take place through the Internet. In addition, secondary data can be collected through books, articles in journals, visits to agencies and archive searching (Tomaras, 2000).

The research will collect primary data through the employees, using the questionnaire as the main research tool. Therefore this research is quantitative.

The quantitative research is mostly carried out with a questionnaire. The design of the questionnaire is the cornerstone of the research since it specifies the type of the research questions the research aims to answer and the type of questions that will be used for this purpose. The first rule in designing a questionnaire is that it should be suitable for the method that will be used. People that respond to postal or online surveys are not able to directly ask "What exactly do you mean by that?", if they do not understand a question, while confidential personal questions are often treated much better in the case of postal or online surveys, in which anonymity is guaranteed.

The questionnaire will be designed by the researcher and the questions will concern the collection of data relating to the research objectives. The questions will be closed-ended because of they can be analyzed more easily (Kyriazopoulos & Samanta, 2011). Also, the questionnaire will be short and simple. The questionnaire will be sent electronically to the e-mails of the employees in the public sector, as this reduces the costs of the research and the time for the collection of the questionnaires.

The design of the sample in a research requires taking three decisions. First, to whom the research is directed (sampling unit). The answer to this question is not always obvious. For example, to study the decision-making process for the purchase of a family car, the researchers should interview the husband, the wife, other family members, car vendors, or all of them. Researchers need to determine what information is needed and who is more likely to provide this information. The second decision refers to the number of people that should participate in the research (sample size). The large samples give more representative results than the small ones. However, if the sample representing 1% of the population is

properly selected, it can provide reliable results. The third decision refers to the method that the sample of people should be selected (sampling process) (Kyriazopoulos & Samanta, 2011).

Using possible, random samples each member of the population may be included in the sample, and the researchers can estimate the confidence intervals of the sampling error. But when the possible sample costs too much or takes too much time to complete the research with this sample, the researchers often take non-random samples, even if the sampling error cannot be estimated. These various sampling techniques have different costs and time constraints and different precision and statistical properties (Kyriazopoulos & Samanta, 2011).

Probability samples include the method of random sampling or simple random sampling. Simple random sampling is the simplest of all methods, but also the most expensive method. The original random sampling involves introducing a rule, a method, which gives equal probability to each subject of the population to be selected in the sample. This method ensures the full representation of the population in the sample, which implies ease to statistical manipulation, but also assumes perfect sampling frames and high costs because of the need, as a rule, for larger samples especially in relation to populations with large geographical dispersion. Two issues are of particular interest in simple random sampling. Identifying the appropriate sampling frame and defining the criterion based on which the random selection of the sample will take place (Ioannidis, 2005).

Stratified sampling is chosen by researchers who wish to approach samples with the greatest possible representativeness. In this method the results obtained have higher statistical precision. Stratified sampling is based on the fact that different subsets in the population affect the size surveyed to varying degrees. It would be, therefore, desirable to select a random sample from the entire population, but smaller samples from each individual layer of the population. Each layer is considered as a separate population, that is the sampling takes place separately to each such layer and then, from the findings from each layer we draw the overall result after weighing the findings from each layer in the calculation of the final parameters of the overall sample. The basis for separating the population into layers is to identify groups which behave differently compared to the surveyed size. If the sample rate is equal in all layers then this is called proportionate stratification. However, where the different layers have different weight for the surveyed size, then a different

sample percentage is selected from each layer and this is called disproportionate stratification sampling (Stathakopoulos, 2001).

In cluster sampling the researcher divides the total size of the population into different subsets of one another. Then, the researcher selects sample subsets at random, and certain subsets of the population are excluded, unlike the stratified sampling in which the selection contains all subsets. Usually in cluster sampling, the aim is to select small subsets in order to be able to measure the entire subset. Many times, this cannot be done because it is impossible to construct small subsets and therefore the researcher continues to select successive subsets from 10 selected subsets in order to result to a final sample. This procedure is called multistage cluster sampling and may include two or more stages. Many times, a sample of subsets is selected, at first, and then, another subset is selected from this sample and so on. This procedure can continue in several stages, if it is deemed necessary and the conditions of the peculiarity of the population allow it. Cluster sampling is especially useful for large and dispersed populations when it is necessary to collect a large sample (Ioannides, 2005).

Non-probability sampling relates to quota sampling. Quota is the sample size of a subset. Sometimes it is useful to set quotas to ensure that the sample reflects the relevant subsets of the target population of interest. For example, the views of men differ from those of women in many areas. If the researcher wishes to investigate and reflect with precision the views of the general population, he should ensure that men comprise the sample by 48% and women by 52%, which are the respective percentages of the general population according to the statistical office (Stathakopoulos, 2001).

Convenience sampling is a non-probability sampling technique where the individuals are selected because they can be easily approached by the researcher. The researchers are using their judgment (experience) in the selection of the members of the population that seem to have good chances to provide them accurate information.

Snowball sampling takes place by asking a participant to suggest someone else who is suitable for the research. Snowball sampling is particularly useful in populations that are difficult to obtain samples (Stathakopoulos, 2001).

This research will employ the method of random sampling in order to select the individuals that will comprise the research sample. The questionnaire will be distributed to these individuals via e-mail (Kyriazopoulos & Samanta, 2011).

4.5 Code of Conduct

This research will try to adhere to the ethical standards of a research, to respect the scientific truth and the intellectual property to personal data. The same respect will be shown to the subjects participating in the research and the principles of reliability of a scientific research will also be respected.

4.6 Reliability Analysis

In order to investigate the reliability of the questionnaire the Cronbach's alpha index was used. Values above 0.7 indicate high level of reliability while values above 0.6 are acceptable and values above 0.5 are poor. In table 1 the Cronbach's alpha values can be seen. In most cases the results are satisfactory.

Table 1: Reliability Analysis

Scale	Alpha	Description
Pay	.873	Pay and remuneration
Promotion	.866	Promotion opportunities
Supervision	.909	Immediate superior
Fringe Benefits	.589	Monetary and nonmonetary fringe benefits
Contingent Rewards	.563	Appreciation, recognition, and rewards for good work
Operating Procedures	.498	Operating policies and procedures
Coworkers	.329	People you work with
Nature of Work	.763	Job tasks themselves
Communication	.956	Communication within the organization
Total Job satisfaction	.947	Total of all facets

Task performance	.936	Commitment
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4.7 Sample

A convenience sample of 100 pilots that have worked in the Air force's several units in the past was gathered for the current analysis. The random sampling method was chosen since it was more economical and less time consuming. Its drawback was the lack of the generalization of the statistical analysis results. The sample included only male pilots. 40% of the sample was between the ages of 35-39 years old, 22% was between 30-34 years old, 18% was between 40-44 years old, 8% was between 25-29 years old, 6% was between 45-49 years old and the rest 6% was between 20-24 years old. As far as the educational level besides the training in the Air force 47% had no other studies, while 25% was a University graduate, 15% had a master/PHD and the rest 13% was a University student. Furthermore, 21% of the pilots had worked in the Air force between 9-12 years, 20% between 21-24 years, 19% between 25-28 years, 13% between 1-4 years, 8% between 13-16 years and the rest 6% between 5-8 years. Regarding the wing were pilots belong to 29% referred to the combat wing, 24% to the Hellenic Tactical Air Force command, 16% to the Hellenic National Defence General Staff, another 16% to the air training command and the remaining 15% to the Hellenic Air Force Support Command. Pilots also reported their family status, so 38% lived alone, 27% lived with children that have completed secondary education, 25% lived with children in preschool/ school age children, 5% lived with their brothers/sisters and the rest 5% lived with their companion /spouse. In relation to the family income 19% referred to a family income between 2001-2500 euros, 18% between 1501-2000 euros, 16% between 3001-3500 euros, another 16% between 3501-4000 euros, 8% between 2501-3000 euros, another 8% between 4001-4500 euros, 8% between 4501-5000 euros and the rest 7% below 1500 euros.

4.8 Statistical Analysis

Descriptive and inferential statistics were used in this analysis in order to answer the research questions. Descriptive statistics (percentages, mean values and standard deviations) were used in order to present the pilots' answers. Inferential statistical were

used (Spearman's rho index, anova, regression analysis) to answer the research hypothesis regarding the potential association between task performance and job satisfaction.

Chapter 5 – Results

This section presents the respondents' answers using descriptive statistics. A correlation analysis and a regression analysis are also presented.

Table 2

Pilots' Job Satisfaction

	N	Minimum	Maximum	Mean	Std. Deviation	Range
Pay and remuneration	100	4,00	12,00	7,7300	2,07367	2-12
Promotion opportunities	100	3,00	12,00	7,7900	2,30632	2-12
Immediate superior	100	4,00	10,00	6,4700	1,85568	2-12
Monetary and nonmonetary fringe benefits	100	3,00	12,00	6,2600	2,36395	2-12
Appreciation, recognition, and rewards for good work	100	3,00	12,00	6,5000	2,48022	2-12
Operating policies and procedures	100	4,00	11,00	8,0500	1,77169	2-12
People you work with	100	6,00	12,00	8,5400	1,94063	2-12
Job tasks themselves	100	4,00	12,00	8,4900	2,27190	2-12
Communication within the organization	100	4,00	12,00	7,6000	1,88562	2-12
Total score of Job satisfaction	100	43,00	101,00	67,3900	15,83813	18-108

According to table 2 pilots have an average level of satisfaction from their work. This result is not only represented in the total score of all facets ($M=67.39$, $SD=15.83$) of the job satisfaction scale but also in every subscale. More specifically the majority of pilots were satisfied from the pay and remuneration ($M=7.73$, $SD=2.07$), promotion and opportunities ($M=7.79$, $SD=2.30$), operating policies and procedures ($M=8.05$, $SD=1.77$), people they work with ($M=8.54$, $SD=1.94$), job tasks ($M=8.49$, $SD=2.27$) and communication within the organization ($M=7.60$, $SD=1.88$). Also, the majority of pilots were dissatisfied from the immediate superior ($M=6.47$, $SD=1.85$), appreciation, recognition and rewards from good work ($M=6.50$, $SD=2.48$) and the monetary and non monetary fringe benefits ($M=6.26$, $SD=2.36$).

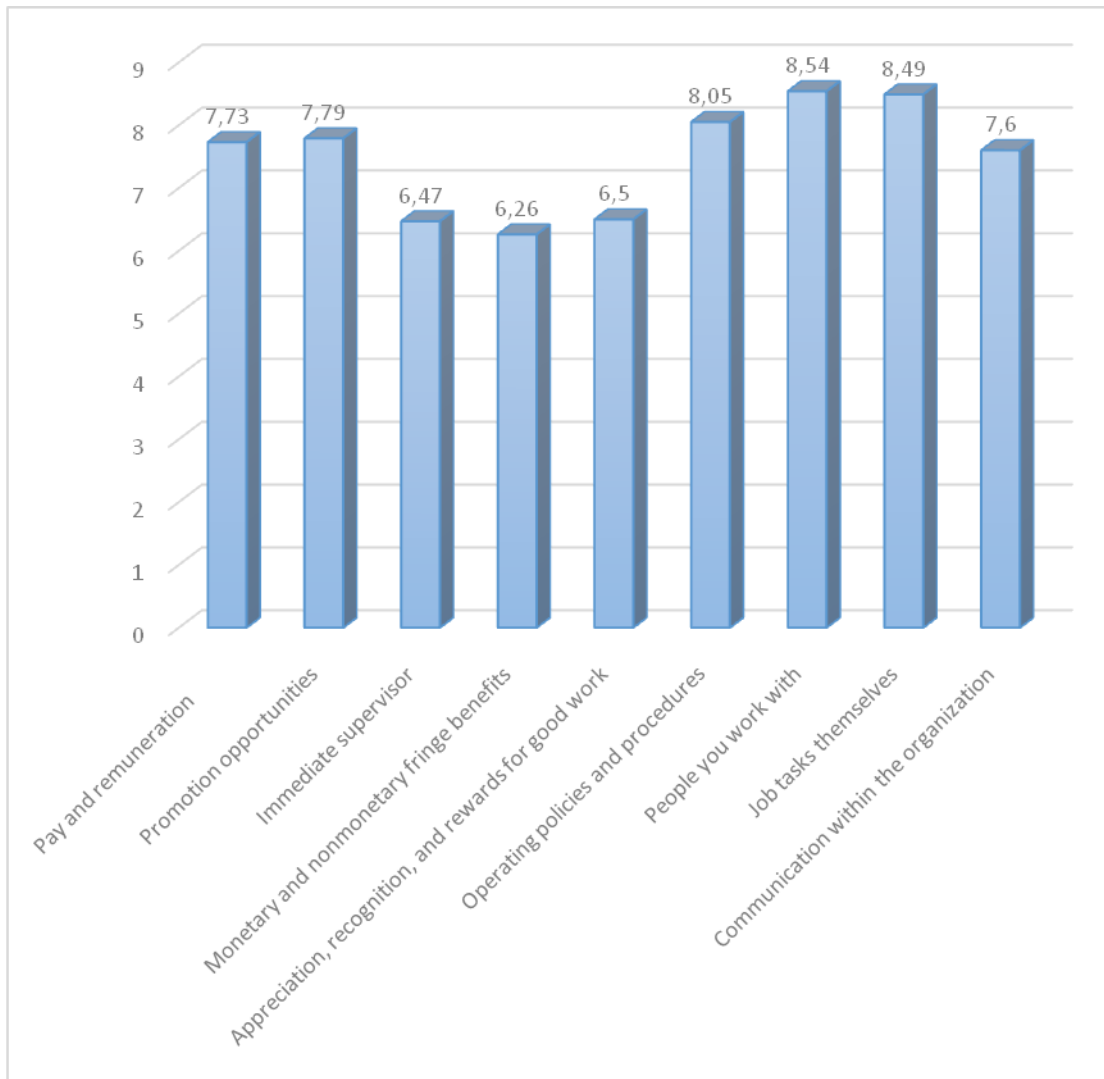


Table 3

Task Performance

N	Minimum	Maximum	Mean	Std. Deviation	Range
100	47,00	121,00	73,2400	17,49870	20-140

According to table 3 the pilots' task performance is average since their mean value is 73.24 and the mean value of the scale is 80.

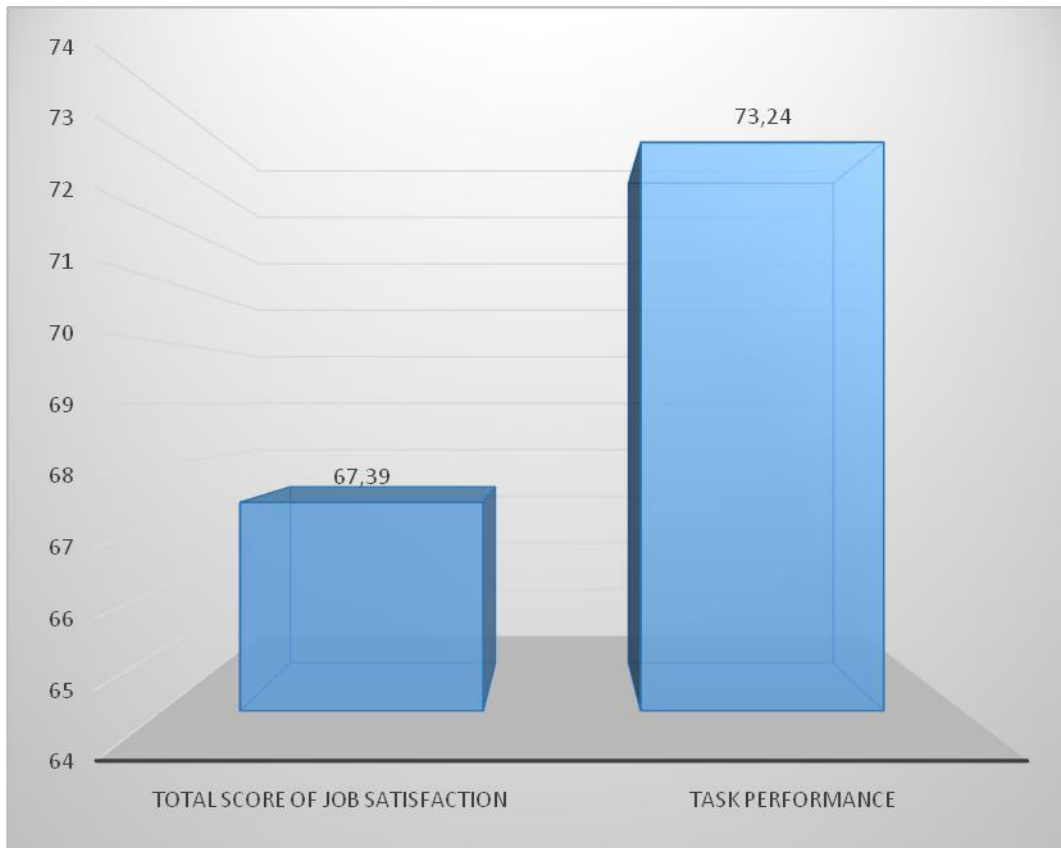


Table 4
Differences among the pilots' educational levels regarding the Job Satisfaction and the Task performance

	Educational level besides the training in the Air Force									
	University student		University graduate		Master / Doctorate		No other studies		F(3, 96)	p
	M	SD	M	SD	M	SD	M	SD		
Pay and remuneration	8.00	.00	7.12	1.92	8.00	2.73	7.89	2.19	0,976	0,407
Promotion opportunities	7.85	.69	7.28	2.41	7.93	2.71	8.00	2.42	0,552	0,648
Immediate superior	6.00	1.00	6.32	2.06	6.27	1.75	6.74	1.96	0,730	0,537
Monetary and nonmonetary fringe benefits	5.08	1.89	5.88	2.09	6.67	2.94	6.66	2.34	1,951	0,127
Appreciation, recognition, and rewards for good work	5.85	1.34	5.88	2.13	7.07	3.17	6.83	2.61	1,375	0,255
Operating policies and procedures	8.23	.44	7.72	1.65	8.60	1.59	8.00	2.09	0,824	0,484
People you work with	7.38	.96	8.64	1.52	8.67	2.47	8.77	2.09	1,837	0,146
Job tasks themselves	8.85	1.34	7.68	2.01	9.27	2.31	8.57	2.51	1,816	0,149
Communication within the organization	7.38	.96	7.08	1.80	7.40	2.47	8.00	1.88	1,472	0,227
Job satisfaction	64.62	5.49	63.56	14.75	70.00	19.83	69.36	16.81	0,999	0,397
Task performance	70.15	6.20	71.60	16.71	73.07	15.70	75.02	20.52	0,364	0,779

According to table 4 the pilots' educational category does not affect their job satisfaction and task performance level since all p-values are more than 0.05.

Table 5
Differences among the pilots' monthly family income regarding the Job Satisfaction and the Task performance

	Monthly family income																F(7, 92)	p
	Under 1500€		1501-2000		2001-2500		2501-3000		3001-3500		3501-4000		4001-4500		4501-5000			
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD		
Pay and remuneration	8.29	2.14	7.56	2.33	7.79	2.49	7.38	1.92	7.50	2.00	7.75	1.61	8.00	2.14	8.00	2.14	,182	,989
Promotion opportunities	8.14	2.73	7.72	2.35	7.84	2.71	7.25	2.31	7.56	1.93	7.62	2.33	8.25	2.43	8.38	2.07	,229	,977
Immediate superior	6.71	1.80	6.22	1.63	6.16	1.71	6.38	2.07	6.81	2.17	6.75	2.24	6.38	1.77	6.50	1.69	,262	,967
Monetary and nonmonetary fringe benefits	7.14	2.97	6.17	2.48	6.74	3.03	5.75	1.75	5.81	1.47	5.94	1.88	6.38	2.77	6.50	2.73	,428	,882
Appreciation, recognition, and rewards for good work	7.29	3.09	6.56	2.59	6.58	3.10	5.75	1.75	6.19	2.04	6.37	2.19	6.75	2.96	6.88	2.23	,274	,963
Operating policies and procedures	8.29	2.21	8.06	1.63	8.47	1.68	7.50	1.85	8.19	1.33	7.56	2.16	8.00	2.20	8.13	1.73	,455	,865
People you work with	8.71	2.06	8.11	1.97	9.11	1.94	8.00	1.51	8.63	2.13	8.69	1.89	8.25	1.98	8.38	2.26	,485	,843
Job tasks themselves	9.00	2.83	9.11	2.19	8.00	2.29	8.38	2.45	8.50	1.83	7.87	2.47	8.25	2.66	9.38	2.00	,711	,663
Communication within the organization	8.57	1.90	7.28	2.27	7.74	2.10	7.25	1.83	7.06	1.69	7.69	1.25	8.00	1.85	8.00	2.14	,672	,695
Total of all facets	72.14	19.22	66.83	16.40	68.63	18.94	63.63	13.91	65.69	13.42	66.06	14.77	68.63	17.54	70.13	15.35	,244	,973
Task performance	69.57	13.67	69.89	15.93	72.42	14.79	74.38	18.02	78.69	23.24	74.56	18.27	75.50	22.17	69.00	12.62	,452	,867

According to table 5 the pilots' monthly family income does not affect their job satisfaction and task performance level since all p-values are more than 0.05.

Table 6
Correlation between the Job satisfaction scale and the task performance scale

Spearman's rho	Task performance
Pay and remuneration	,750**
Promotion opportunities	,624**
Immediate superior	,553**
Monetary and nonmonetary fringe benefits	,295**
Appreciation, recognition, and rewards for good work	,465**
Operating policies and procedures	,622**
People you work with	0,167
Job tasks themselves	,467**
Communication within the organization	,457**
Total of all facets	,626**

According to table 6 there is a statistical positive correlation between the job satisfaction scale and the task performance scale ($\rho = .626$, $p < .001$). This results applies for every facet of the job satisfaction scale and the task performance scale.

Table 7

The prediction of task performance based on the pilots' job satisfaction level

Model	Unstandardized		Standardized		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1 (Constant)	30,021	8,591			3,494	,001		
Pay and remuneration	8,485	2,105	1,005		4,031	,000	,078	12,801
Promotion opportunities	-,244	1,564	-,032		-,156	,877	,114	8,739
Immediate superior	3,859	,918	,409		4,204	,000	,513	1,949
Monetary and nonmonetary fringe benefits	-2,156	,944	-,291		-2,283	,025	,299	3,346
Appreciation, recognition, and rewards for good work	-1,496	1,255	-,212		-1,192	,236	,154	6,508
Operating policies and procedures	-,177	1,469	-,018		-,121	,904	,220	4,553
People you work with	-,192	1,052	-,021		-,182	,856	,357	2,800
Job tasks themselves	-,416	1,007	-,054		-,413	,681	,284	3,518
Communication within the organization	-2,056	1,544	-,222		-1,332	,186	,176	5,692

a. Dependent Variable: Task performance

A regression analysis was conducted with dependent variable the task performance and independent variables all the facets of the job satisfaction scale. The analysis resulted [F(9, 90)=12.589, $p < .001$, $R^2 = .563$] that the significant predictor variables of the task performance were the immediate superior ($B = 3.859$, $p < .001$), pay and remuneration ($B = 8.485$, $p < .001$) and monetary and non monetary fringe benefits ($B = -2.156$, $p = .025$). Pay and remuneration had the greatest positive influence in the task performance followed by the immediate superior. The monetary and non monetary fringe benefits had negative influence.

Conclusions

This section, which is the natural outcome of the theoretical and practical research conducted by the author through the development of the chapters that preceded it, the final conclusions of the study will be made available to the reader. In particular, the results of the research will be presented briefly and then these results will be combined with the theory in order to present the final findings of this study.

The analysis conducted above resulted that pilots were satisfied on average from their work. More specifically, the majority of pilots were satisfied from the pay and remuneration, promotion and opportunities, operating policies and procedures, people they work with, job tasks, and communication within the organization. Also, the majority of pilots were dissatisfied from the immediate superior, appreciation, recognition and rewards from good work and the monetary and non monetary fringe benefits.

In addition pilots indicated a good level of task performance in their work. The analysis also concluded that the monthly family income and the educational level of the pilots does not affect their job satisfaction and task performance level. Furthermore, the analysis established an association between job satisfaction and task performance. More specifically when either of the level of satisfaction increases for pay and remuneration, promotion and opportunities, operating policies and procedures, people they work with, job tasks, communication within the organization, immediate superior, appreciation, recognition and rewards from good work and the monetary and non monetary fringe benefits then the task performance also increases.

But the most significant facets of job satisfaction regarding their impact on task performance were the immediate superior, pay and remuneration and monetary and non monetary fringe benefits. Among these three aspects of job satisfaction pay and remuneration had the greatest positive influence in the task performance followed by the immediate superior. The monetary and non monetary fringe benefits had negative influence.

The results of the statistical analyzes, as presented above, in relation to the determinants of job satisfaction in the Air Force are in complete correspondence with the theoretical approaches, which were developed in the part of the literature review of the study, especially with models such as those of Wright & Davis.

Job satisfaction shows a significant positive correlation with the fees, the total remuneration, the promotions and opportunities for improvement of the working conditions, the wider internal working conditions, the internal processes, the relationships with other employees, the workpiece and finally, with the wider internal communication. Another influential factor is the role the employees have in the unit to which they belong, their tasks, job roles, the variety of activities, the feedback, the development of human resources and the clarity of the organizational objectives.

In contrast, there is a wider concern of the respondents regarding the objectives that are set and how they are paid for achieving these objectives and also for the various procedural constraints that affect their position in the organization. Finally, it appears that there is a wider conflict of objectives.

The positive correlation between job satisfaction and feedback is what highlights the critical role that the superiors play in shaping the mood of the employees. From the above stem the strategies that can be implemented by the administration of the Air Force in order to strengthen the satisfaction of its employees at work.

In particular, the administration should organize regular lectures at the level of Squadrons, in order to communicate the objectives and other responsibilities to the staff, and perform assessments of their performance. It should be noted that the imposition of rules and procedures is a necessity because they ensure the safety of the employee and of the aviation material, but the Command of the Unit should evaluate and review them constantly in order to ensure the balance between the safety of staff and instruments on one hand and the flexibility of processes on the other.

Additionally, special emphasis should be placed on learning and development policies of the military personnel, whether in the form of internal and external training courses either in the form of graduate programs. A very important finding of the study of Wright & Davis, upon which the proposed model was based, is the fact that the two thirds of the factors that affect job satisfaction in the public sector are not related to monetary incentives.

Therefore, in times of economic crisis like the present, the attention of the Air Force Command to the developmental needs of its staff is perceived as a positive move for improving their professional perspectives, a fact that enhances their job satisfaction.

In addition, the Command should establish conditions for the implementation of work with a variety of activities and responsibilities that will require different knowledge and skills. A practical application in this direction is job rotation, of course, according to the existing orders and regulations and the qualifications of the staff. Although employees generally resist to such practices, because they lose their routine tasks, the benefit is twofold since they learn new skills and gain a more comprehensive picture of how the Unit should operate and generally the air force in entirety.

In the following and based on the analysis so far, it was found that the factor that primarily contributes to shaping job satisfaction of employees in the Air Force is the feedback they receive both from their immediate superiors and from the Quality Control Department of their Unit, which is the chief body responsible for carrying out assessments and for monitoring the operations based on the established quality standards.

The second most influential driver of job satisfaction is the variety of activities and to a lesser extent, employee satisfaction is also influenced, in the order presented, by the conflict of the organizational objectives, the additional studies, the clarity of organizational objectives and age, the development of human resources, and finally the way they were selected to enter the Air Force. It can be observed that overall job satisfaction of the military personnel can be construed in accordance with the five of the seven variables of the theoretical model of Wright & Davis. These do not include procedural restrictions and clarity of the work role, which can be understood in general, taking into account the fact that the study refers to the military environment the effective operation of which relies heavily on the adherence to regulations and orders (which the military personnel has understood clearly ever since their admission to the academies of the Air Force) and the military personnel has detailed technical documents that accurately describe the procedures that must be followed when performing their tasks.

The Command of the Air Force needs to understand, given the working conditions of the personnel, that it is very important to be satisfied at all operating levels within the organization. Maybe the economic crisis has reinforced the sense of economic and employment security, but this does not suffice. A pilot, who experiences a variety of risks on a daily basis, wants to feel happy at work, to feel useful, to feel that his work is recognized and that his contribution to the unit and the safety of his country is appreciated.

Maslow's pyramid of needs, the most important and comprehensive model of incentives, provides a clearer understanding of how the pilot operates at the level of job satisfaction in his unit and generally in the Air Force. Specifically, the pilots have covered their financial needs, their security needs, namely they have secured the livelihood part, and hence what they need is recognition, recognition that comes from the highest levels, from their superiors and widely from the Air Force Command.

Understanding their needs, internal and external support in all their requirements, understanding their position in the wider Air Force, the so-called self-actualization becomes the most important, essential and regulatory satisfaction factor, which contributes to the continuous strengthening of their dynamics within the Air Force.

Education and continuous training constitute factors that indicate that an organization, in the present case the Air Force, is interested in improving its personnel, in this case the pilots, and therefore they are factors indicating that there is interest to enhance their dynamics and their knowledge. Self-actualization has nothing to do with material possessions but with the emotions of the pilots and most especially the need to feel valuable. Communication can play a role in this, since the pilots need the Command to hear and be interested in their opinions, phobias and reflections, to be interested for their future and not only their present. Through this process it is certain that the pilots will become more productive, will care more about the needs of the Air Force and not just confine themselves to formally do their job, to get paid and have no enthusiasm or mood for achieving the objectives that will help themselves and the entire Air Force.

Finally it should be mentioned that this study presented some limitations, one of which is that the job satisfaction in the Air Force was investigated not on the whole but only for a small sample, which was indeed representative, but also leaves room for further research with larger samples in the future.

Therefore, a field for future research would be to study the job satisfaction in relation to all personnel of the Air Force, including those working at the Headquarters. In addition, it would be useful to repeat this research at a future date to be able to compare the results of this study with future investigations. Any future research on a larger sample and a different timeframe will provide more data and can be compared to the existing and lead to more findings in relation to the job satisfaction of the pilots in the Hellenic Air Force.

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Appendix

Questionnaire

We are conducting a survey to help us better understand the relationship between job satisfaction and job performance among the pilots of Hellenic Air Force.

The information you provide us will be extremely valuable.

All of your answers will be kept strictly confidential and never associated with your name.

JOB SATISFACTION SURVEY		Strongly Disagree							Strongly agree
PLEASE CHOOSE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.									
		1	2	3	4	5	6	7	
1	I feel I am being paid a fair amount for the work I do.								
2	There is really too little chance for promotion on my job.								
3	My supervisor is quite competent in doing his/her job.								
4	I am not satisfied with the benefits I receive.								
5	When I do a good job, I receive the recognition for it that I should receive.								
6	Many of our rules and procedures make doing a good job difficult.								
7	I like the people I work with.								
8	I sometimes feel my job is meaningless.								
9	Communications seem good within this organization.								
10	Raises are too few and far between.								
11	Those who do well on the job stand a fair chance of being promoted.								
12	My supervisor is unfair to me.								
13	The benefits we receive are as good as most other organizations offer.								
14	I do not feel that the work I do is appreciated.								
15	My efforts to do a good job are seldom blocked by red tape.								
16	I find I have to work harder at my job because of the incompetence of people I work with.								
17	I like doing the things I do at work.								
18	The goals of this organization are not clear to me.								

TASK PERFORMANCE SCALE PLEASE CHOOSE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.		Strongly Disagree							Strongly agree
		1	2	3	4	5	6	7	
1	Adequately completes assigned duties								
2	Fulfills responsibilities specified in job description								
3	Performs tasks that are expected of him/her								
4	Meets formal performance requirements of the job								
5	Engages in activities that will directly affect his/her performance evaluation								
6	Neglects aspects of the job he/she is obliged to perform								
7	Fails to perform essential duties								
8	Helps others who have been absent								
9	Helps others who have heavy work – loads								
10	Assists supervisor with his/her work								
11	Takes time to listen to co-workers; problems and worries								
12	Goes out of way to help new employees								
13	Passes along information to co-workers								
14	Attendance at work is above the norm								
15	Gives advance notice when unable to come to work								
16	Takes undeserved work breaks								
17	Great deal of time spent with personal phone conversations								
18	Complains about insignificant things at work								
19	Conserves and protects organizational property								
20	Adheres to informal rules devised to maintain order								

DEMOGRAPHIC DETAILS

Gender

- Male
 Female

Age

- 20-24
 25-29
 30-34
 35-39
 40-44
 45-49

Please indicate your educational level besides your training in the Air Force

Please choose only one of the following:

- University student
 TEI student
 University graduate
 TEI graduate
 Master / Doctorate
 No other studies

Please indicate the years of your past service in the Air Force

Please choose only one of the following:

- 1-4
 5-8
 9-12
 13-16
 17-20
 21-24
 25-28
 29-32
 33-35

Please indicate your post

- Combat Wing
 Hellenic Tactical Airforce
 Hellenic National Defence General Staff
 Air Training Command
 Hellenic Air Force Support Command
 Other

You live with:

Please choose only one of the following:

- Spouse - Companion
 Preschool / school-age children
 Children that have completed secondary education
 Alone
 Brother/Sister
 Parents

Please indicate your approximate monthly family income in euros:

Please choose only one of the following:

- Under 1500€
- 1501-2000
- 2001-2500
- 2501-3000
- 3001-3500
- 3501-4000
- 4001-4500
- 4501-5000
- 5000€ and above

The house in which you live is:

Please choose only one of the following:

- Owned
- Rented
- A Type House

The post you serve was your first choice in this year's transfers?

Please choose only one of the following:

- Yes
- No

You consider that you face your financial obligations:

Please choose only one of the following:

- Very hardly
- Relatively hardly
- Neither easily nor hardly
- Relatively easily

Your financial situation over the past year:

Please choose only one of the following:

- Has improved
- Has remained the same
- Has worsened
- DK/NA

Your employment situation in the last year:

Please choose only one of the following:

- Has improved
- Has remained the same
- Has worsened
- DK/NA

What was your main criterion for your career choice?

Please choose only one of the following:

- Instant employment
- Advancement
- Prestige
- Family tradition
- Financial earnings
- Personal desire
- Other

Do you consider that this basic criterion was finally satisfied?

Please choose only one of the following:

- Yes
- No