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THE HUMAN RESOURCE FACTOR IN THE CONSTRUCTION INDUSTRY: IN WHAT WAY DOES THE ORGANISATIONAL CULTURE AFFECT IT?

DIMITRIOS P. KAMSARIS* and ANGELIKI TROCHANA**

ABSTRACT

This paper aims at answering the strategic question, “In which way do the values embedded in an organisational culture affect the human resource factor “n” in the Greek construction industry”?

The construction industry is operating within a continuously changing environment a fact which influences the performance of construction companies. In addition, it has been criticized of poor performance because of the little development of its human resources.

In an attempt to improve the performance of the construction industry there is a need to examine in what way the organisational culture and the Human Resource Management influences the performance of a construction organisation.

A research was undertaken in 21 Greek construction companies. The primary data collected was through a closed questionnaire and overt participant observation. 210 full-time engineers participated in the research whereas the data collected was analysed by Excel.

Having discussed the findings of this research, suggestions for improvements are given. The limitations of the research are also acknowledged and recommendations for further research are given.

Keywords: Human Resource Management; Organisation; Organisational Culture; Culture.

1. INTRODUCTION

The objective of this paper is to present a topic of organisational culture and the way it has an influence on the human resources factor (Kamsaris, 2007) in the Greek construction Industry. Egan (as cited in Kaka and Brown, 2003, p.A-1) states that the construction industry is under achieving and argues that the construction industry has not perceived that people are “its greatest asset” (p.A-7). Furthermore, Egan states that “construction can not afford not to get the best from people” (p.A-7) a fact that highlights the importance of human resource management in the construction industry. The present research is based on a previous study conducted on the sector and a MSc dissertation, and it is important for companies engaging in the same industry, may use the results of this set of researches in order to increase the understanding of the human resources as mingling within the culture of a company developed within the

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construction sector. The products of this study are also important for the academic community interested in discovering the correlation of human resources factor with the organisational culture within the construction industry.

Thomas (1996) argues that changes occur and organisations have to manage them and face uncertainty and risks that stems from these conditions which can be due to the social and organisational structural changes, globalization of markets, technological, legal and regulatory changes, mergers, acquisitions and demographic changes.

A construction organisation consists of people who have to work together, although, they have different work interests and objectives, resulting in construction projects suffering from conflict and dispute, the consequence of which leads to delays, higher costs and schedule overrunning.

The major research question to be investigated within the present research is the following:

- In what way does the organizational culture influences the human resource factor?

1.1. Research contents

The first chapter contains the introductory stage to the research.

The second chapter includes the literature review. The purpose is to define the problem and the background of the study. This will include a bibliographical research, through books and up to date journals. In this chapter definitions related to organisational culture management and HRM will be included as well as the relevant theories.

The third chapter includes the research design and methodology which will describe the steps that will be undertaken in order to address the research questions, the research approach, the research techniques.

The fourth chapter includes data analysis and findings resulting from the research expressed through tables, diagrams and descriptions.

The last chapter includes the conclusions and recommendations and it will provide suggestion for further study in the future.

2. LITERATURE REVIEW

2.1. The concept of Human Resource Management

Huang (1999) argue that HRM has gained an increased interest for research since 1980 and this is according to Dyer, Smith-Cook, Ferris and Wright et al. (Huang, 1999) due to the fact that it provides a competitive advantage for an organisation as well as allowing them to achieve an efficient management. Druker, Liu, Ruan and Xu,

2005 first introduced the concept of human resource in “The practise of management” in which human resource has a key role for management practises.

According to Torrington, Hall and Taylor (2002) the definition of HRM is difficult to be given partly because it is used generically to describe activities of personnel management and partly because it is used to describe “a distinctive philosophy towards carrying of people-oriented or organisational activities” (p.6). Torrington et al (2002) define HRM as a distinctive approach to the management of people, HRM is related to the provision and development of HRM needs and is concerned with planning, monitoring and controlling of resources while problem solving is achieved by members of management on HR issues.

According to Marchington and Wilkinson (2006) the concept of HRM originated in USA in 1960s and 1970s while two schools of thought emerged, namely the Fombrun et al in 1984 and the Harvard framework in 1985. Fombrun et al (Marchington et al, 2006) advocated the linking of HRM to the organizational strategy and divided the “human resource cycle”(p.4) in four components, namely selection, development, appraisal and reward in order to determine the effectiveness in which they deliver improved performance. Contrary to Fombrun et al, the Harvard framework, according to Beer et al (Marchington et al, 2006) was divided HRM in six components namely the situation factors which relates to the organization’s environment, the stakeholder interest , the HRM policy chooses which is related mainly to employees influence, the HR outcomes in terms of commitment, competence, cost effectiveness and congruence, the long- term consequences in terms of individual well-being, organizational effectiveness and societal goals and the feedback loop.

According to Fombrun et al and Beer et al (Brewster and Bournois, 1991) HRM has both the “hard” as well as the “soft” approach. The hard approach of HRM demonstrates that people are resources within an organization as a result of which people should be managed in similar ways. Cost is the key factor for obtaining people while people should be viewed as a scarce resource depending on their quality and efficiency. The words “employees” (Brewster et al, 1991) is replaced by “human” or “people” (p.4). Contrary to the hard approach, the soft approach concentrates upon human demonstrating that creativity, commitment and skills of employees add value to an organization and generate competitive advantage. Therefore, the skills of people are the most important attributes for the success or otherwise failure of organizations.

The importance of managing HR is also emphasised by Walker (Snape et al, 1995) according to which “The challenge of managing human resource is to ensure that all activities are focused on business needs. All human resource activities should fit together as a system and be aligned with human resource strategies. The strategies in turn should be aligned with business strategies”.

2.2. Organisations, culture and organisational culture

Scott (2001) describes organisations as “multifaceted, durable social structures, made up of symbolic elements, social activities and material resources”. This view of the organisation from the perspective of sociological institutionalism seems to suit the purposes of this research.

According to Luthans and Hodgers (1989), culture is the acquired knowledge which people use to interpret experience and generate social behaviour. According to Hodgers and Luthans (1991) culture has the following characteristics:

- Culture is not inherited or biologically based; it is acquired by learning and experience;
- People as members of a group, organisation, or society share culture;
- Culture is cumulative and it passes from one generation to the next;
- Culture is the human capacity to symbolise or to use one thing to represent another; and
- Culture is structured and is integrated. Therefore a change in one part may bring changes in another.

Furthermore Hodgers and Luthans (1991) argue that culture also affects perception, that is, the process through which people receive, organise, and interpret incoming information, in other words a person’s view of reality, and stereotypes that are the tendency to perceive another person as belonging to a specific category. There are different perceptions for: “how people view themselves, how they view others and how they believe others view them” (Hodgers and Luthans, 1991).

Dawson (1996) describes organisational culture as "shared values and beliefs, which characterise particular organisations". Luthans and Hodgers (1989) further refine the concept stating, “Organisational culture consists of the organisation’s norms, beliefs, attitudes and values. Baumard (1994) argues that organisational culture can also be understood as a “tacit system of knowledge conversion and regulation and it is concerned with the organisational information systems”. Furthermore, “culture consists of patterns, explicit and implicit, of and for behaviour acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiment in artefact” (Kroeber and Kluckhohn, 1952). We may therefore conclude that organisational culture consists of shared norms, values, beliefs and attitudes. Organisational culture is (explicitly or implicitly) expressed in all communication processes and shapes patterns of behaviour and action within the organisation.

3. RESEARCH METHODOLOGY

3.1. Research techniques

The research method that will be undertaken in the study is the use of questionnaires. Questionnaires, according to Marchington et al (2006), are conducted by using limited resources, do not cost much and results in a large sample. Background, behavioural and attitudinal data can be collected through questionnaires according to Brewerton and Millward (as cited in Marchington et al, 2006).

According to Bryman et al (2007), there are the closed questionnaires in which the respondents chose the answer from the options available or by using a five-point scale from strongly agree to strongly disagree; and the open questionnaires in which the respondents answers the questions in the form of a text in the several lines. Closed questionnaires are to be used as part of the research in the study, providing in that way quantitative data. Closed questionnaires, according to Bryman et al (2007):

- Allows an easy process of answers as the respondents will place a tick on the appropriate answer while the answers are already coded.
- Enable a researcher to make comparisons between the answers provided.
- Respondents are not required to write extensively, so, much easier.
- The respondent may not be able to find an answer, among the options given.
- Terms are understood differently by the various respondents.

According to Sekaran (2003), there are three ways in which a questionnaire can be administered:

- Mail (geographic allocation, complete at home, low response rate, no clarification).
- Electronic (easy administered, low cost, fast delivered, home, respondents use pc).
- Personally administered (little time for collection, motive for honest answer, low cost, high response rate, high anonymity of respondents).

The researcher used personally administered questionnaires.

The questionnaires were distributed to the subjects of the research on the 27th April 2009. They were administered in English but there were also available in Greek for those that were not confident with the English language. The amount of time it took for the questionnaire to be completed and delivered back was one to five days. The data collected is to be analyzed through the Microsoft Office Excel computer programme showing in diagrams the results.

3.2. Ethical consideration

All the data collected will be kept strictly confidential and anonymity will be preserved in order for the results to be valid and reliable. Therefore, the questionnaire will be completed anonymously so that people of the research would not worry that what they say may get back to managers or colleagues fact which would result to an adjustment of their answers accordingly.

3.3. Sample

According to Bryman et al (2007) there are six steps for selecting the sample size within the simple random sample.

- Defining the population. The “A construction company” is constituted by 136 employees from whom 94 are engineers.
- Selection of a comprehensive sample frame (only on full-time engineers 86/94).
- Decision of the sample size (55 full-time engineers).
- all the engineers in the population are listed and assigned with numbers (1-86).
- Engineers are selected with a computer programme generating random numbers.
- The sample size has been selected and is constituted by 55 subjects.

4. DATA COLLECTION AND ANALYSIS

The first four questions are intended to indicate the demographic profile of the subjects of the research such as gender, age, educational background and the years working in the company. Therefore, the research has shown that 55.8% of the sample are male compared to the 44.2% that are female. The largest percentage of subjects, the 48.1%, is between 31 and 41 years old, the 28.8% is between 21 and 31 years old and the 13.5% is between 41 and 51 years old. Only a small percentage of the sample, the 5.8% is over 51 years old and 3.8% are under 21 years old. The third question is concerned with the educational background. None of the subjects was merely a high school graduate. Instead, the largest percentage of the sample, the 57.7% has a University degree, a smaller percentage, the 23.1%, has a Technological Educational Institute degree whereas the lowest percentage which corresponds to the 19.2% has undertaken post graduate studies. As far as the years that the subjects of the research are working in the company is concerned the largest percentage, the 40.4% is working in the company between 1 to 3 years, the 28.8% is working in the company between 3 to 5 years, a smaller percentage, the 19.2%, is working in the company between 5 to 7 years whereas only the 11.5% is working in the company less than one year. These

percentages are shown in diagrams 4, 5, 6 and 7 below (Sample Demographic profile, graphs 1 - 4):

FIGURE 1: GENDER OF THE SAMPLE
(TROCHANA, 2009)

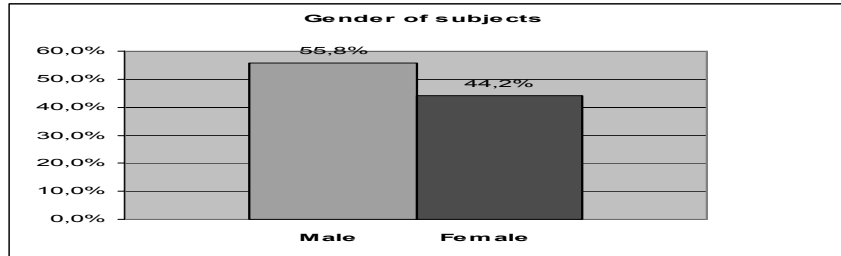
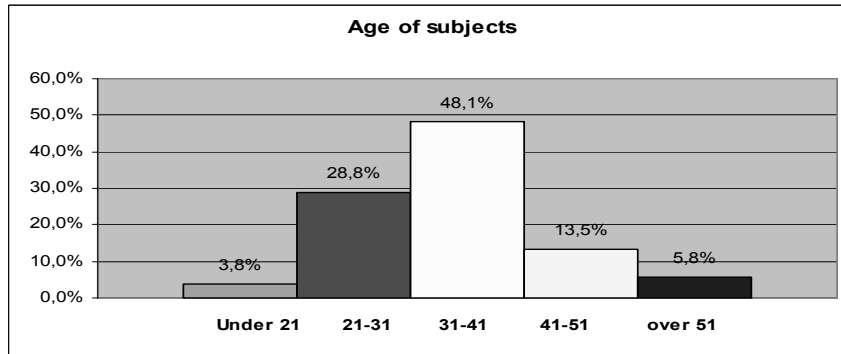


FIGURE 2: AGE OF THE SAMPLE
(TROCHANA, 2009)



The next question is concerned with which of the human, financial and physical resource subjects of the research believe is the most important for the company to control. 48.1% believe that human resource is the most important for the company to control compared to 36.5% which believes that financial resource is the most important. There is also a smaller percentage of 15.4% which believe that physical resource is very important.

FIGURE 3: EDUCATIONAL BACKGROUND OF THE SAMPLE (TROCHANA, 2009)

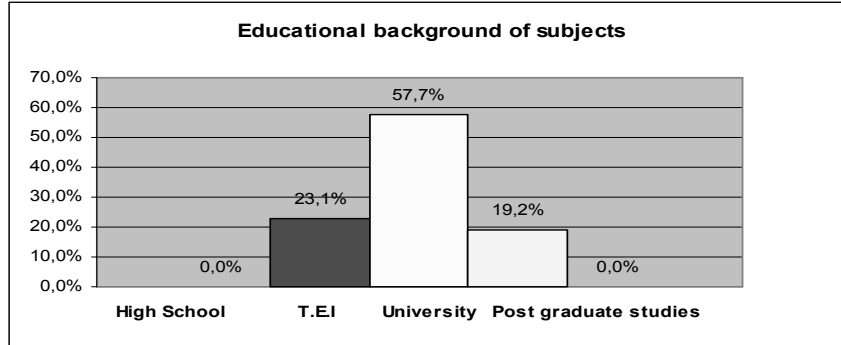
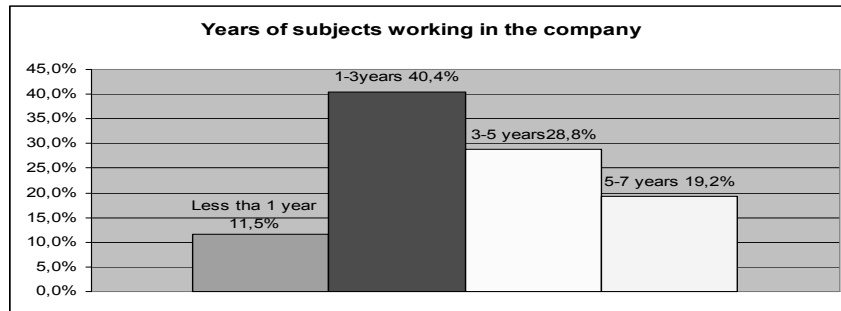


FIGURE 4: YEARS OF SUBJECTS WORKING IN THE COMPANY (TROCHANA, 2009)



The next question asked from the subjects of the research is to indicate what is for them the HRM? The largest percentage, 63.5%, replied that HRM aims at ensuring that people are developed towards achieving specific performance, then 26.9% replied that HRM aims at ensuring that the company is staffed with the appropriate people whereas the lowest percentage, 9.6%, replied that HRM is just related to the administration of the company. None of them replied that HRM is useless to the company.

FIGURE 5: THE MOST IMPORTANT RESOURCE FOR THE COMPANY (TROCHANA, 2009)

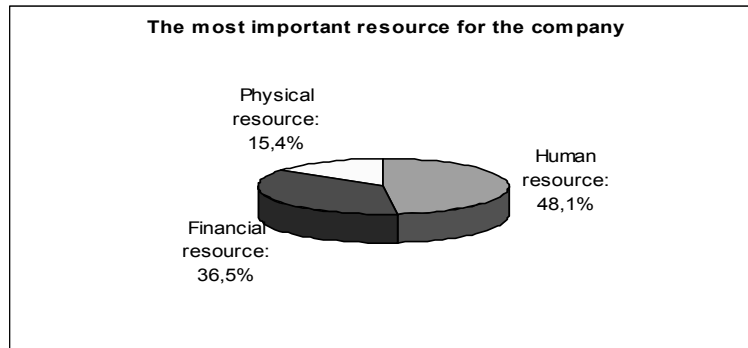
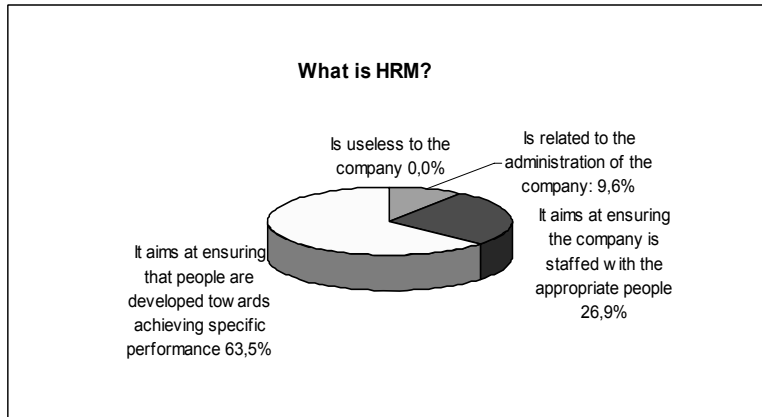


FIGURE 6: WHAT IS HRM ACCORDING TO THE SAMPLE? (TROCHANA, 2009)



In the next question the subjects of the research were asked whether the company is operating within a continuously changing environment. The largest percentage, 80.8%, believes that the company is operating within a continuously changing environment contrary to 19.2% that do not agree.

In addition, the subjects of the research were asked to indicate in which way the company can cope with changes when operating within a continuously changing environment. More than the half of the sample, 55.8%, replied that the company can cope with changes by continuously developing its people which a smaller percentage, 19.2%, replied that the company can adopt different political responses for each

circumstance. The 15.4% indicated that the company can dismiss its people and employ more capable whereas the lowest percentage, 9.6%, believe that the company can adopt the same political response for each circumstance in order to cope with changes.

FIGURE 7: THE COMPANY IS OPERATING WITHIN A CONTINUOUSLY CHANGING ENVIRONMENT (TROCHANA, 2009)

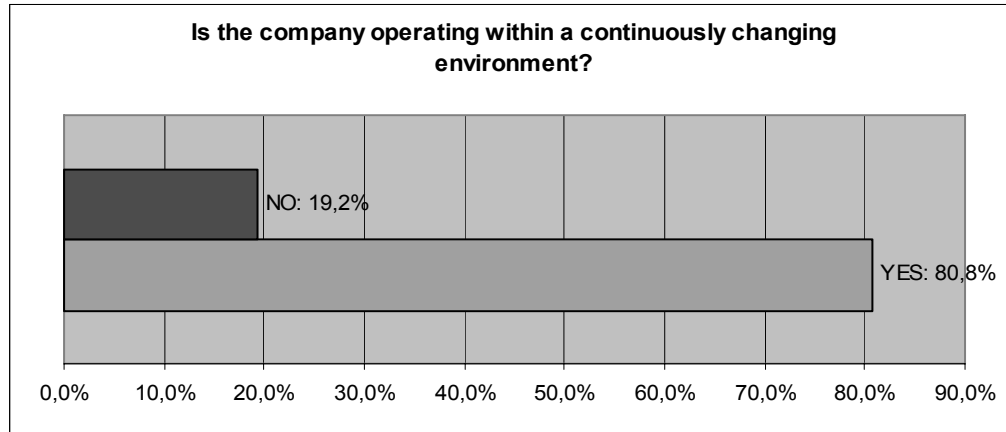
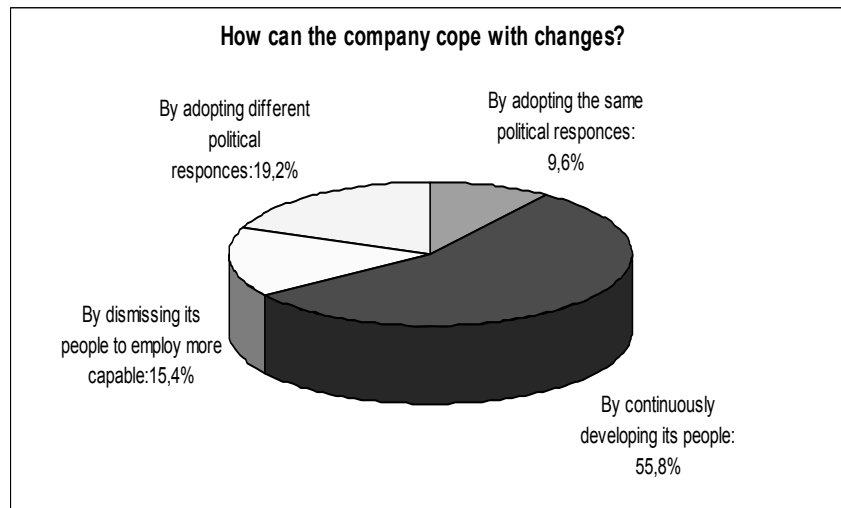
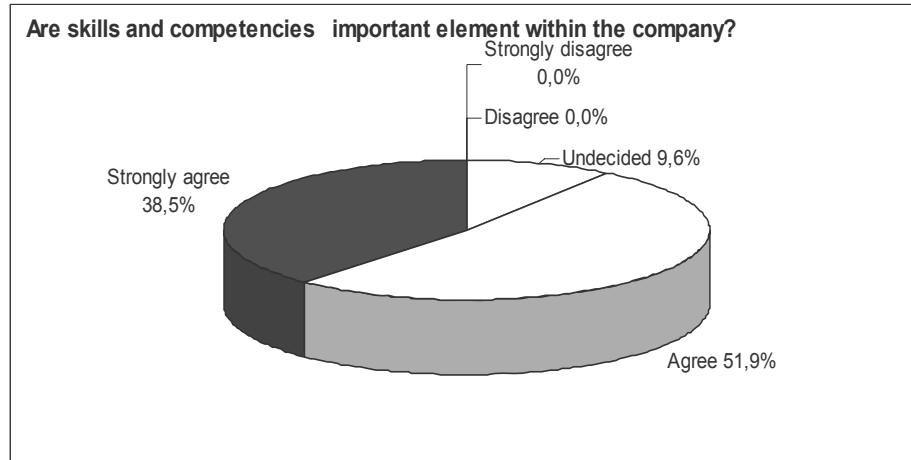


FIGURE 8: WAYS THE COMPANY CAN COPE WITH CHANGES (TROCHANA, 2009)



In the next question the subjects of the research were asked to indicate in a one to five scale, from strongly disagree to strongly agree whether people's skills and competencies are an important element within the company. None of them replied that they strongly disagree or disagree. Instead, the largest percentage, 51.9%, replied that they agree while 38.5% stated that they strongly agree. However, there was a small percentage, 9.6%, that was undecided.

FIGURE 9: THE IMPORTANCE OF SKILLS AND COMPETENCIES WITHIN THE COMPANY (TROCHANA, 2009)



Furthermore, the subjects of the research were asked to indicate what skills the company requires from its employees. The research has shown that technical skills, 48.1%, are the most important, contrary to the personal skills indicated by 30.8% of the sample and the educational skills indicated by 21.2% of the sample.

From 48.1% of the subjects that indicated the technical skills, the largest percentage, 44% believe that learning ability is the most important technical skill, while a 24% of the subjects believe that knowledge of construction methods is the most important technical skill the 16% believe that matches past solutions to present needs is most important whereas 8% of the subjects indicated that knowledge of the construction methods is the most important among others, while another 8% of the sample believe in the drawing skills.

FIGURE 10: TECHNICAL, EDUCATIONAL AND PERSONAL SKILLS (TROCHANA, 2009)

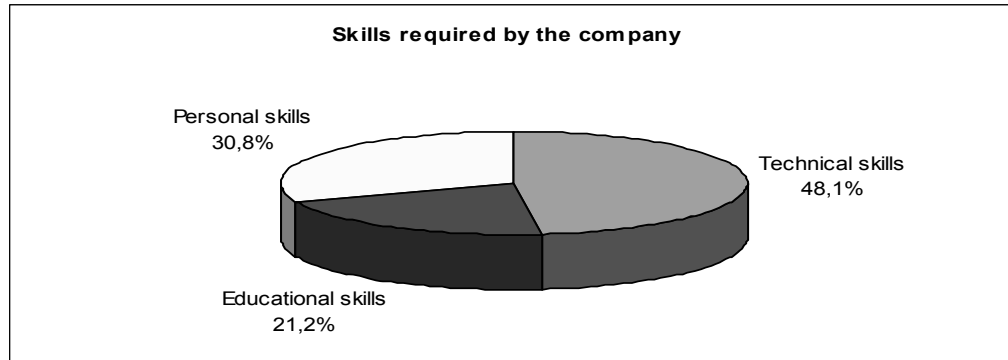
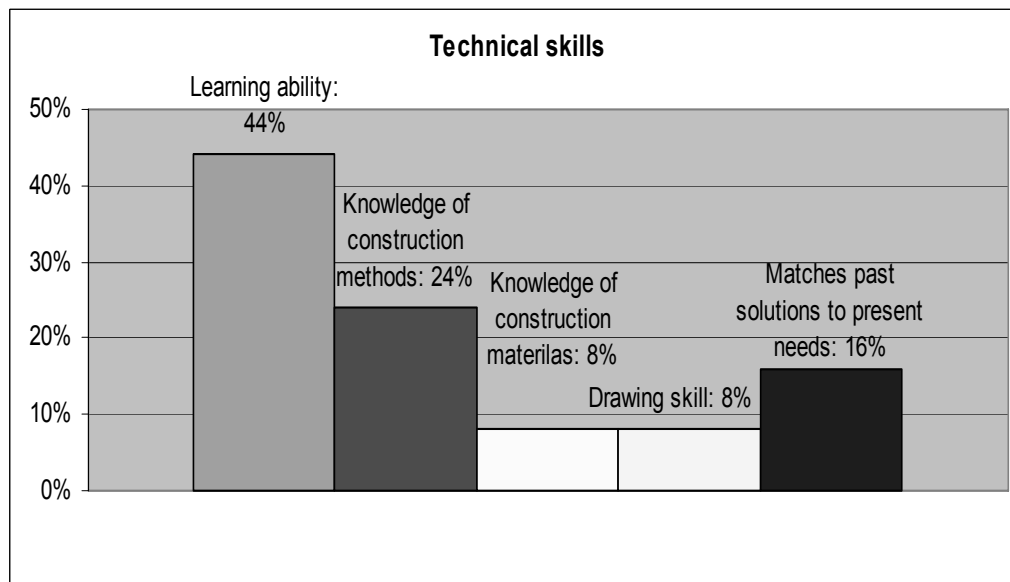
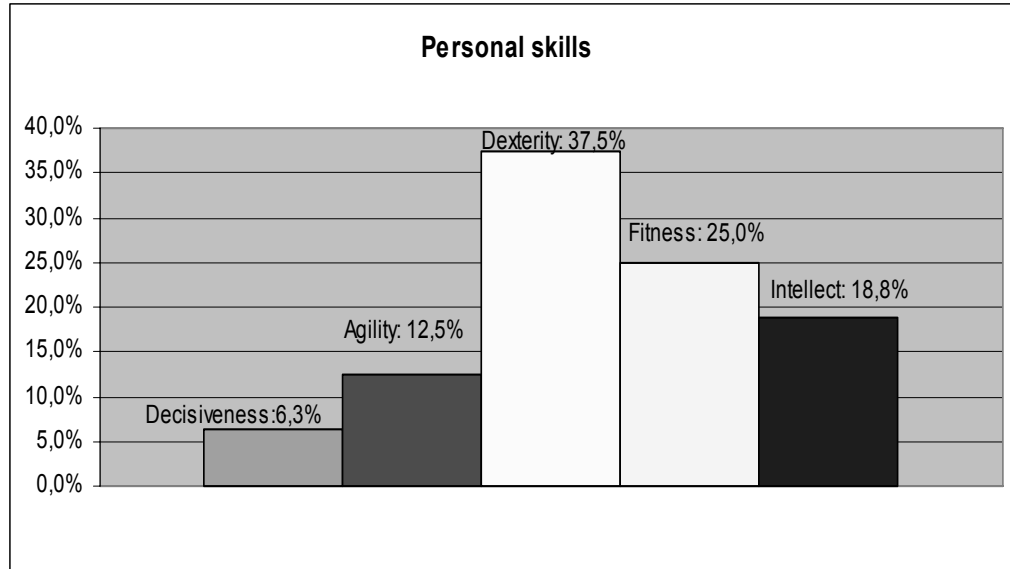


FIGURE 11: TECHNICAL SKILLS (TROCHANA, 2009)



From the 30.8% of the subjects that indicated the personal skills as the most important skill, 37.5% agree that dexterity is the most important personal skill, 25% of the subjects agree that fitness is the most important personal skill, 18.8% indicated intellect, 12.5% indicated agility as the most important among others whereas there was a small percentage, 6.3%, that indicated that decisiveness is very important.

FIGURE 12: PERSONAL SKILLS (TROCHANA, 2009)



From the 21.2% of the subjects that indicated educational skills as the most important skill the largest percentage, 45.5%, agree that problem solving skills are the most important educational skill. Then, a smaller percentage, 27.3%, believes that decision making skills are the most important skill whereas communication skills are highlighted by the 18.2% of the sample. There is also a small percentage, 9.1% that believe in the judgment of the quality of information as the most important educational skill.

Furthermore, the subjects of the research were asked whether training is important to their work. The largest percentage of the sample, 82.7%, indicated that training is very important compared to the 17.3% that indicated that some degree of training is necessary whereas none of them have replied that training is not important or a waste of time.

In the next question the subjects of the research were asked whether the company has ever provided them with training practices. 38.5% replied positively compared to 61.5% that replied that the company has never provided them with training practices.

From the 38.5% that have been provided with training practices the largest percentage, 55.0%, been trained through seminars, 20.0% through stimulating them to seek the advice by a colleague that has a greater experience, 15.0% through team-working whereas only 10.0% through conferences.

In addition the 38.5% that have been provided with training were asked to indicate the effects of training at their work. The largest percentage, 50.0%, indicated that training has resulted at increasing their skills, 30.0% indicated that their effectiveness has been improved and 5.0%, indicated that training has resulted at increasing their productivity. However, there is also a small percentage, 15.0%, that indicated that training has no effects at their work.

FIGURE 13: EDUCATIONAL SKILLS (TROCHANA, 2009)

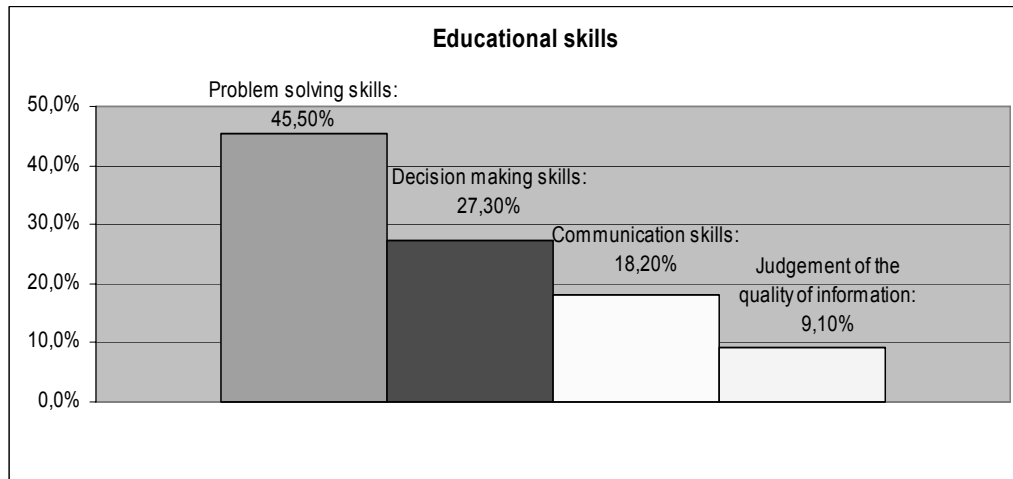


FIGURE 14: THE IMPORTANCE OF TRAINING WITHIN THE COMPANY (TROCHANA, 2009)

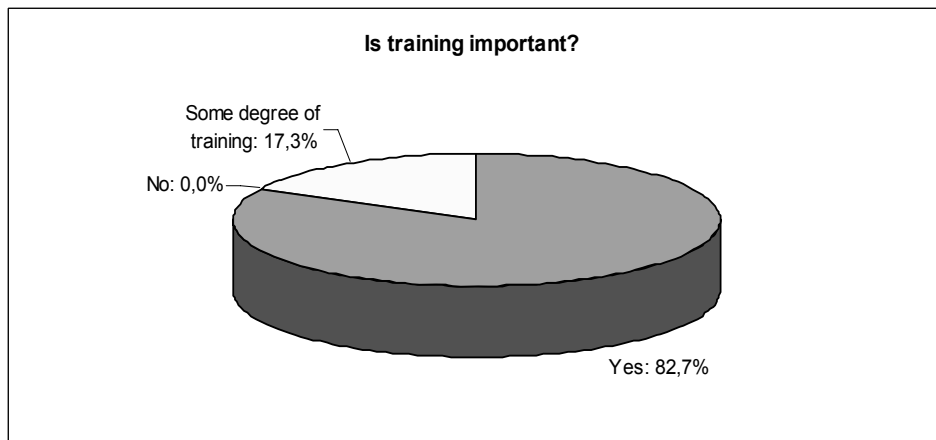


FIGURE 15: THE DEGREE TO WHICH THE COMPANY IS PROVIDING TRAINING TO THE SUBJECTS (TROCHANA, 2009)

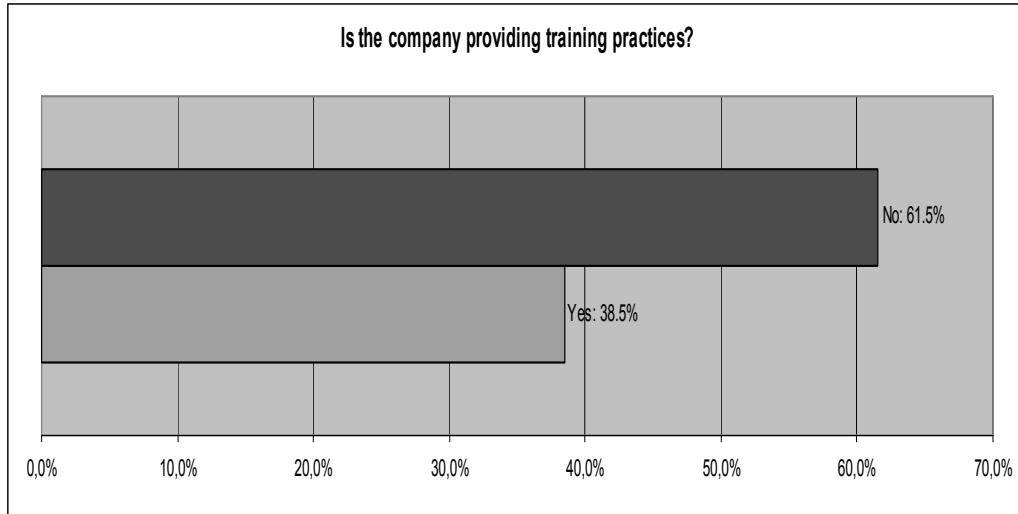


FIGURE 16: WAYS THE COMPANY IS PROVIDING TRAINING PRACTICES (TROCHANA, 2009)

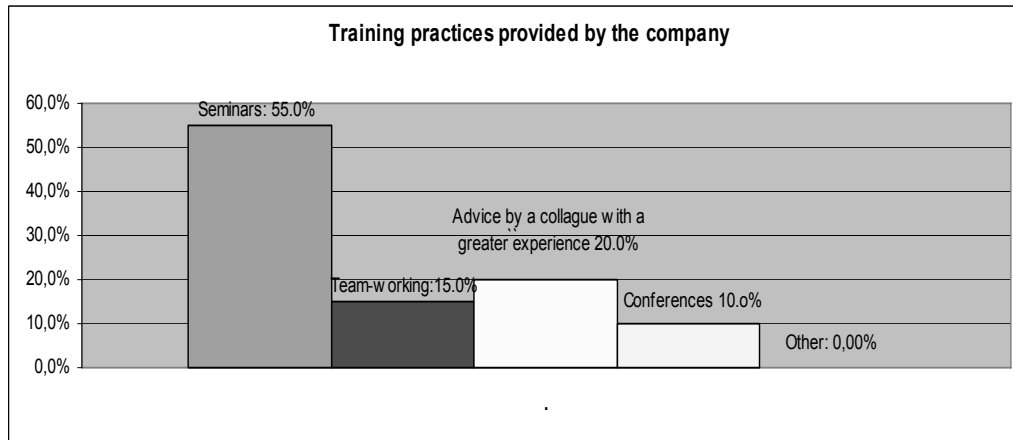


FIGURE 17: THE EFFECTS OF TRAINING PROVIDED BY THE COMPANY TO THE SUBJECTS. (TROCHANA, 2009)

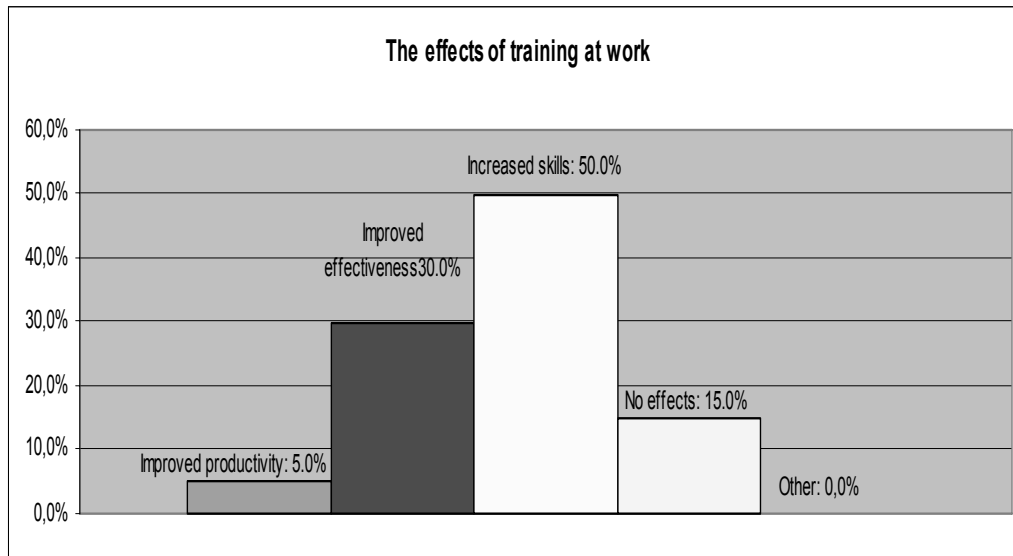
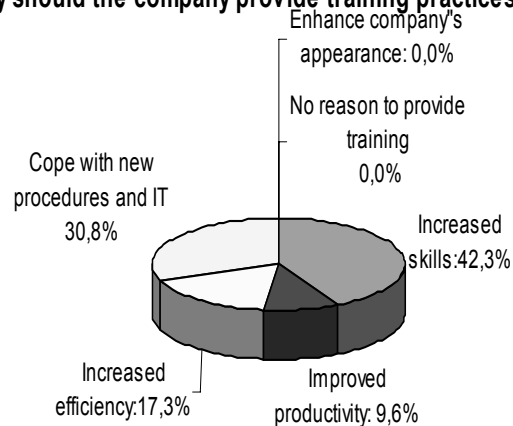


FIGURE 18: THE REASON FOR THE COMPANY TO PROVIDE TRAINING (TROCHANA, 2009)

Why should the company provide training practices?



Moreover, the subjects of the research were asked their opinion about what is the most important reason for the company to provide them with training practices. 42.3%

answered that training is important in order to increase their skills, 9.6% to improve their productivity, 17.3% to increase their efficiency and 30.8% to enable them to cope with the introduction of new procedures and information technology. None of them replied that training, is important in order to increase the company's appearance nor that there is any reason to provide them with training practices.

In addition the subjects were asked whether the company has ever motivated them to work harder in order to achieve specific objectives. 75% replied positively compared to the lower percentage, 25%, that replied negatively.

75% of the subjects of the research that replied positively were asked to indicate the type of motivation that the company has provided them. Reward was indicated by the largest percentage of the subjects, 82.2% as the most predominant type of motivation provided to them. Recognition is the second type of motivation indicated by a significant lower percentage, 10.3%, whereas personal development was indicated only by 7.7% of the subjects of the research.

Furthermore, 75% of the subjects that replied that the company has motivated them to work harder were asked to indicate the effects of motivation at their work. A significant percentage of the subjects of the research, 69.2%, indicated that motivation has resulted at an increase in their productivity. 20.5% indicated that their effectiveness has been increased whereas 10.3% indicated that there were no effects at their work.

Moreover, the subjects of the research were asked what the most important type of motivation is, according to their opinion. A significant percentage of the subjects, 40.4% indicated that the economic incentive is the most important. 23.1% of the subjects indicated that personal achievement is the most important type of motivation, 17.3% indicated recognition as the most important, 13.5% indicated job security whereas the lowest percentage, 5.8%, believes that promotion is the most important.

In the next question the subjects were asked whether the company provides them with the freedom to take on decisions related to their work. 80.8% replied positively compared to the lower percentage 19.2% that replied negatively.

5. CONCLUSIONS AND RECOMMENDATIONS

The results of this study showed that there are differences in the level of education, understanding of the organisation, the organisational culture, organizational communication, the effects the organisational culture has on the communication between the administration and the engineering, self-perception, the perception of the forms of communication developed within the company, perception on the way communication produces conflict or conflict resolution and on the sources of that problem, in the perception of the communication smoothness, of the communication process assumptions, of the results that representation produce, of the change in communication, of the same in communication, of the way to benefit. However, there

are also differences suggested in the perception of the one department with respect to the other and self-perception when comparing the two departments that deserves further study.

This research has found that skills and competencies are very important to the company and that technical skills are primarily required by the company among personal and educational skills. According to a past research, undertaken by Fortune et al (1994), within these three categories of skills the acquisition of knowledge was found to be the most significant characteristic within technical skills, compared to this research which revealed the same result. Within the educational skills the past research revealed that problem solving is the most significant among others. In the same results concluded the quantitative analysis of this research however, the qualitative analysis revealed that communication skills are more important as problem solving can be achieved through an effective communication between parties in teams. Within the personal skills the past research revealed that the development of a good intellect is the most important characteristic contrary to this research that concluded that dexterity is most important.

Training, according to the past researches, was found to be very important to an organisation as according to Hughey et al (1997) it increases the efficiency of employees whereas a number of past studies has shown that there is a positive linkage between training and productivity (as cited in Barrett et al , 2001). The quantitative analysis of this research has shown that undoubtedly training is very important to the company however, only a small percentage of employees within the company are provided with training practices. In addition, this research has revealed that training resulted to an increase level of skills and effectiveness. The effects of those that have not been provided with training, as revealed by the qualitative analysis, were a decrease at their efficiency, productivity and level of skills.

According to the literature review, motivation aims at increasing people's effectiveness as well as at maximising their contribution to the organisational performance. Despite the fact that reward has been seen by some researches as preventing an organisation to achieve quality (as cited in Soltani et al, 2004) both reward and recognition can result to the increase of an organisation values, performance and continuous learning (Milne, 2007). However, according to Argyris (as cited in Osterloh et al., 2000) managers prefer a reward as the intrinsic motivation which can be difficult to implement and often without guaranteed success. This is also true in this research where motivation was found to be very important to the company and in which reward was the primary type of motivation. However, reward has resulted to an increase to the level of productivity rather than effectiveness a fact that resulted at many problems requiring additional amount of time to correct them.

5.1. Limitations of the study

The research does not include interviews as a qualitative research method of collecting information such that the interviewees' own behavior, attitudes, norms, beliefs and values (Kamsaris, 2007). Furthermore, the closed questionnaire used as part of the quantitative research method of collecting information means that the subjects might have not been able to find an answer, among the options given, that correspond to them better despite the fact that this was tried to be resolved by providing a category of "other" in which the respondents could explain.

5.2. Recommendations for future research

This research can give useful information to other researchers so as to avoid pitfalls. Considering future research, investigation can include a largest sample size. Furthermore, it is recommended to future researchers to investigate different groups of engineers in different sub-sectors such as civil engineers, architects, electrical engineers, mechanical engineers while comparing and contrasting the different groups. Moreover, it is also recommended to use interviews as a further research technique in order to collect further information in terms of the interviewees' own behavior, attitudes, norms, beliefs and values.

FIGURE 19: THE IMPORTANCE OF MOTIVATION WITHIN THE COMPANY (TROCHANA, 2009)

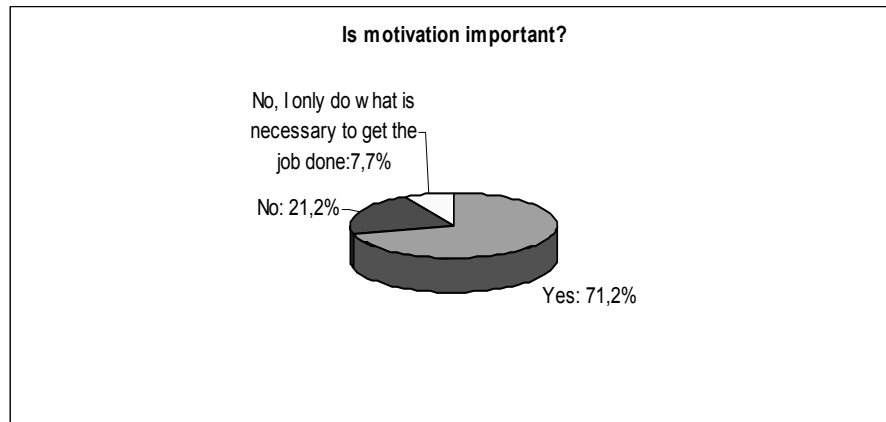


FIGURE 20: THE DEGREE TO WHICH THE COMPANY IS PROVIDING MOTIVATION TO THE SUBJECTS (TROCHANA, 2009)

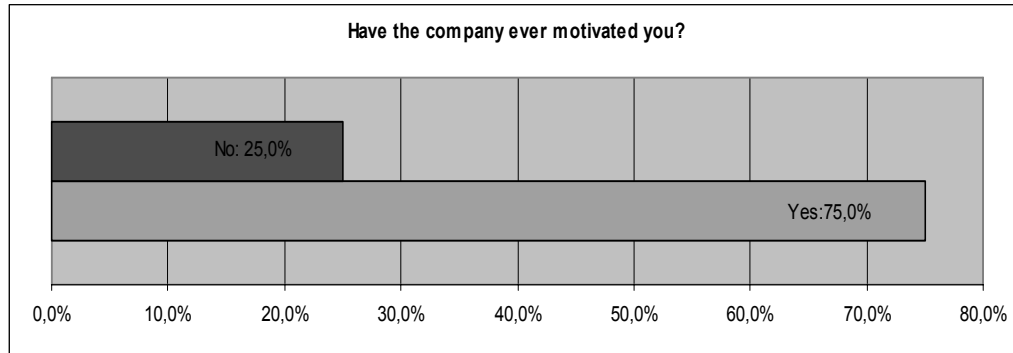


FIGURE 21: TYPES OF MOTIVATION PROVIDED BY THE COMPANY (TROCHANA, 2009)

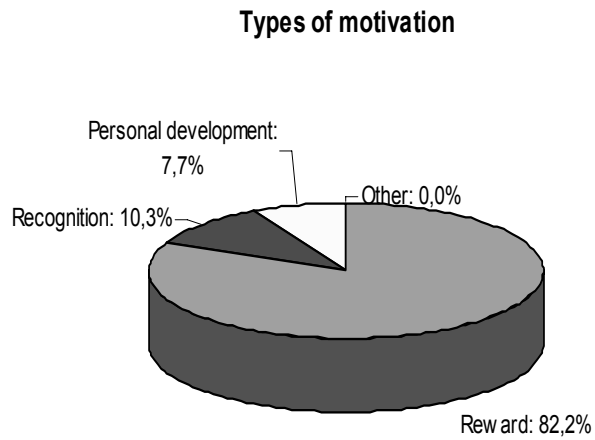


FIGURE 22: THE EFFECTS OF MOTIVATION TO THE SUBJECTS (TROCHANA, 2009)

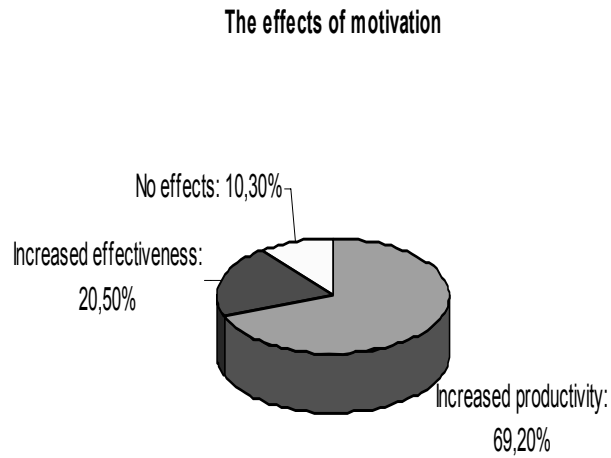
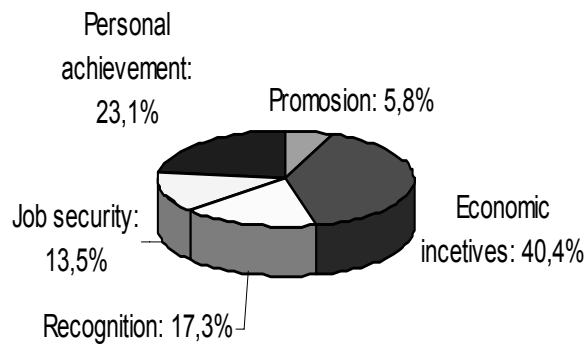


FIGURE 23: TYPE OF MOTIVATION MOST IMPORTANT FOR THE SUBJECTS (TROCHANA, 2009)

The most important type of motivation for the subjects



REFERENCES

- Argyris, C. (1977). Double Loop Learning in Organisations. *Harvard Business Review*, Sept.-Oct., pp. 115-124.
- Armstrong, R and Choueke, R (1998). The learning organization in small and medium-sized enterprises. A destination or a journey? *International Journal of Entrepreneurial Behaviour & Research*, 4(2), pp. 129-140, MCB University Press.
- Barrett, A. and O'Connell, (2001). Does training generally work? The results to in-company training. *Industrial and Labor Relations Review*, 54(3), pp. 647-662, Cornell University, School of Industrial & Labor Relations.
- Baumard, Ph. (1994b). From Noticing to Making Sense: Using Intelligence to Develop Strategy. *International Journal of Intelligence and Counterintelligence*, 7, New York.
- Bell, G. and Rowan, B. (1982). Organizational structure and the institutional environment: The case of public schools. *Administrative Science Quarterly*, 27(2), pp. 259-279.
- Bournois, F. and Brewster, C. (1991). Human resource management: A European perspective. *Personnel Review*, 20(6), pp. 4-13, MCB University Press.
- Brown, W and Kaka, A (2003). Project management strategic issues. Edinburgh: Heriot-Watt University.
- Bryman, A, Dainty, A. R. J. and Price, A. D. F. (2004). Empowerment within the UK construction sector. *Leadership & Organization Development Journal*, 23(6), pp. 333-342, MCB UP Limited.
- Bryman, A, Dainty, A, Greasley, K, King, N, Price, A and Soetanto, R (2005) *Employee perceptions of empowerment*. *Employee Relations*, 27(4), pp. 354-368, Emerald Group Publishing Limited.
- Dawson, S. (1996). *Analysing Organisations*. (3rd ed.). Basingstoke: Macmillan.
- Dyer, L. (1985). Strategic human resources management and planning. In K. Rowland & G. Ferris (Eds.). *Research in personnel and human resources management*.
- Goh, W. and Yahya, S. (2002). Managing human resources toward achieving knowledge management. *Journal of Knowledge Management*, 6(5), pp. 457-468, MCB UP Limited.
- Huang, T (2001). The effects of linkage between business and human resource management strategies. *Personnel Review*, 30(2), pp. 132-151, MCB University Press.
- Hodgers, M. R. and Luthans, F. (1991). *International Management*, McGraw-Hill, Inc.
- Kamoche, K. (1991). Human resource management: A multiparadigmatic analysis. *Personnel Review*, 20(4), pp. 3-14, MCB University Press.
- Kamsaris, D. and Trochana, A. (2011). Organisational culture as a factor affecting the human resources factor in the construction industry. In that content, what are the appropriate techniques a construction organisation can employ in order to increase the engineers' effectiveness. *Project Management Journal*, 13(4).
- Kamsaris, D. (2007). Organisational Culture as a factor affecting the Communication between the Departments of Marketing and Sales. *Cyprus Journal of Sciences*, 5, pp. 167-181.
- Kroeber, A. L. and Kluckhohn, C. (1952). *Culture: A Critical Review of Concepts and Definitions*, 47: Harvard.
- Liu, X., Ruan, D. and Xu, Y. (2005). A study of enterprise human resource competence appraisalment. *The journal of Enterprise Information Management*, 18(3), pp. 289-315, Emerald Group Publishing Limited.

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- Luthans, F. and Hodgers, M. R. (1989). *Business*. The Dryden Press.
- Marchington, M. and Wilkinson, A. (2006). *Human resource management at work. People management and development*. 3rd ed. London: Chartered Institute of Personnel and Development.
- Milne, P. (2007). Motivation, incentives and organizational culture. *Journal of KnowledgeManagement*, 11(6), Emerald Group Publishing Limited.
- Schuler, R. and Walker, J. (1990). Human resources strategy: Focusing on issues and actions. *Organizational Dynamics*, summer, pp. 5-19.
- Scott, W. R. (2001). *Institutions and Organizations*. (2nd ed.). Thousand Oaks, CA: Sage.
- Sekaran, U. (2003). *Research method for business. A skill building approach*. 4th ed. Hoboken: John Wiley and Sons.
- Smith-Cook, D. and Ferris, G.R. (1986). Strategic human resource management and firm effectiveness in industries experiencing decline. *Human Resource Management*, 25, pp. 441-458.
- Snell, S. (in press). A test of control theory in strategic human resource management: The mediating effect of administrative information. *Academy of Management Journal*.
- Thite, M. (2004). Strategic positioning of HRM in knowledged-based organizations. *The learning Organization*, 11(1), 28-14, Emerald Group Publishing Limited.
- Thomas, M. A. (1996). *What is a human resource strategy?* *Health Manpower Management*, 22(2), pp. 4-11, MCB University Press.
- Trochana, A. (2009). Change management as an external environment tool for meeting the needs of the clients. What are the effects in the internal environment? Dissertation, School of the Built Environment Heriot Watt University.
- Wright, P. M. and Snell, S. A. (1991). Toward an integrative view of strategic human resource management. *Human Resource Management Review*, 1, pp. 203-225.