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# The impact of organizational culture on job satisfaction and employee engagement in the Greek energy sector

Paraskevi Gkania<sup>\*</sup>, Evangelia Markaki<sup>†</sup>

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## Abstract

The aim of the current dissertation was to examine the impact of organizational culture on job satisfaction and employee engagement in the Greek energy sector. For that purpose, questionnaires were handed out in Greece, employing a digital platform such as Google forms. The analysis of the data was conducted with SPSS. It included correlations and regression analyses as well as parametric tests. The results indicated that organizational culture is positively associated with job satisfaction. In other words, a positive and supportive culture leads to higher levels of job satisfaction. In this context, companies should adopt more aspects of people-oriented cultures (clan and adhocracy) for improving more the job satisfaction levels of its personnel. The most important culture aspects that drive job satisfaction were: systematic search for new products/services, transparency in decision making units, accessibility to top leadership and supervisors concerns about employees' personal problems. In the same length, the analysis indicated that organizational culture leads to higher levels of employee engagement. In other words, there is a positive association between culture and engagement of the staff. In this case, the most important factors of organizational culture that lead to employee engagement were: teamwork and collaboration among the staff, freedom at work, and accessibility to leadership. It is indicative that the ties between culture and engagement were stronger than the ties between culture and satisfaction from work. Overall, the research showed that a supportive organizational culture is a key determinant of job satisfaction and employee engagement. In this context, we should move towards more people-oriented culture schemes (clan and

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adhocracy). This will improve substantially its overall performance in the competitive landscape of the Greek energy sector.

**JEL Classifications:** L0, L20, L29

**Keywords:** Organizational culture, Job Satisfaction, Employee Engagement, statistics

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## 1 Introduction

The terms of Organizational culture, Employee engagement and Job satisfaction are critical in the HR landscape. At the one hand, Organizational culture plays a pivotal role in shaping the dynamics within a workplace, influencing everything from employee behaviour to overall organizational performance (Armstrong, 2014). On the other hand, Job satisfaction and employee engagement are key determinants of organizational success. Satisfied and engaged employees are more likely to be productive, innovative, and committed to their organization, which in turn drives overall performance and competitive advantage (Saks, 2006). Conversely, a lack of job satisfaction and engagement can lead to high turnover rates, reduced productivity, and negative organizational outcomes (Harter, Schmidt, & Hayes, 2002). Therefore, understanding the factors that influence these aspects of the employee experience is of paramount importance. Moreover, in the energy sector, where companies usually operate in complex environments, the importance of a cohesive and supportive organizational culture is magnified. Synthesizing the above, the aim of the current dissertation is to examine the impact of organizational culture on job satisfaction and employee engagement in the energy sector in Greece.

In short, this work explores the impact of organizational culture on job satisfaction and employee engagement within the Greek energy sector, focusing specifically on the within the energy sector. The energy sector serves as a critical case study for understanding how organizational culture influences employee outcomes in the energy industry. Given its substantial workforce and significant role in the national economy, it provides a unique context for examining these relationships. In an era where the energy sector faces numerous challenges, including regulatory changes, technological advancements, and shifting market demands, fostering a positive organizational culture is essential for maintaining high levels of job satisfaction and employee engagement.

## **2 Literature review and hypotheses development**

Organizational culture is a complex construct, which refers to the shared values, beliefs, norms, and assumptions that characterize an organization (Schein, 2004). It dictates how employees interact, communicate, and make decisions, influencing their work experiences and overall well-being. A positive and supportive organizational culture is a cornerstone for job satisfaction, employee engagement, and overall organizational effectiveness (Kahn, 1990; Schein, 2004), playing a pivotal role in shaping all aspects of organizational operations. This influence is particularly crucial for entities within the energy sector in Greece, facing distinct challenges and dynamics in the energy sector.

On the other hand, job satisfaction as a term, measures an individual's contentment with their work (Brown & Leigh, 1996). When employees feel valued, respected, and empowered, their engagement levels rise, leading to increased motivation, dedication, and performance (Harter et al., 2002). Factors influencing job satisfaction, such as the nature of work, remuneration, working environment, work-life balance, autonomy, and development opportunities, have been extensively documented (Chen et al., 2006; Konrad et al., 1999). Recognizing and enhancing job satisfaction is crucial for organizations, as it correlates with benefits like improved employee performance, reduced turnover, and enhanced customer satisfaction. In the unique context of the energy sector in Greece, prioritizing job satisfaction can result in significant enhancements in operational efficiency, employee well-being, and overall organizational success.

Employee engagement encompasses an individual's emotional, cognitive, and behavioural involvement in their work (Saks, 2006). Engaged employees not only find satisfaction in their work but actively contribute to their organization's goals, fostering innovation, productivity, and overall organizational success (Harter, Schmidt, & Hayes, 2002). This concept is critical in organizational behaviour and human resource management, with numerous studies emphasizing the benefits of engagement, including increased productivity, improved well-being, and better innovation performance (Kumar & Pansari, 2015; Robertson & Cooper, 2010; Pegg, 2009). Within the energy sector in Greece, comprehending and enhancing employee engagement is indispensable for adapting to the rapidly evolving energy sector. Engaged employees are more likely to embrace change, contribute to innovation, and drive sustainable success.

There are several studies that have examined the association between organizational culture and job satisfaction. For example, Soomro & Shah (2019) investigated the linkages among

organizational culture, commitment, job satisfaction and performance. For those purposes the authors handed out questionnaires in a sample of 326 employees. The analysis of data was conducted with advanced techniques such as Structural Equation Modelling (SEM). Results indicated that organizational culture is a key determinant of job satisfaction, which in turn leads to higher levels of employee's performance. Therefore, the study of Soomro & Shah (2019) overall highlights the crucial role of organizational culture in shaping satisfaction from work.

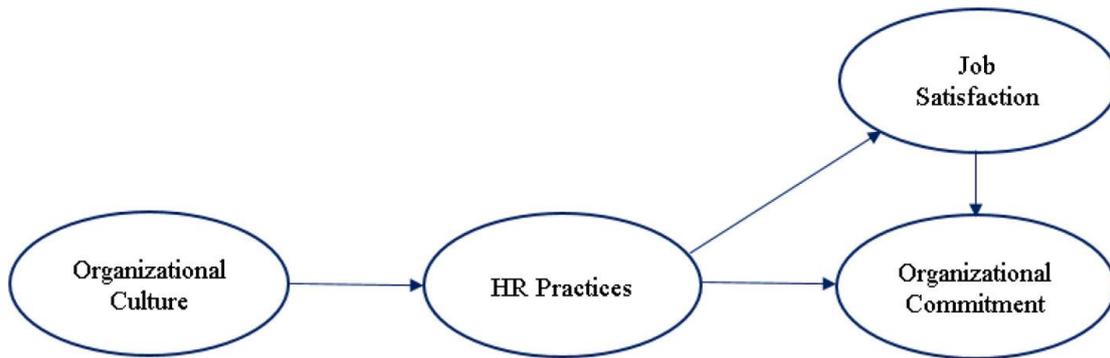
In the same length, Meng and Berger (2019) investigated the impact of crucial organizational factors, such as culture, on the levels of job satisfaction. This study focused exclusively on public relation professionals, since the sample was consisted by 838 employees of the certain sector. SEM was also applied for investigating associations between variables. Meng and Berger (2019) found that a supportive organizational culture leads to higher levels of work engagement, which in turn leads to improved job satisfaction. Thus, the study of Meng and Berger (2019) links organizational culture, engagement and job satisfaction, providing fertile theoretical ground for the current study.

Lund (2003) also investigated the impact of Organizational culture on Job satisfaction. However, Lund (2003) firstly, classified organizational culture in four types, namely: Clan Culture, Adhocracy Culture, Hierarchy Culture and Market Culture.

Park & Doo (2020) explored the relationships between Organizational culture, HR practices, Job satisfaction and Organizational commitment, exclusively in female managers. Therefore, questionnaires were handed out in 230 women managers in Korea. Analysis was conducted with SEM practices. Park & Doo (2020) found that Organizational culture leads to better HR practices, which in turn lead to higher levels of Job satisfaction and organizational commitment. Therefore, there is an indirect relationship between Organizational culture and Job satisfaction (see figure 1).

In the same length, there are studies that support that there is a direct association between organizational culture and employee engagement. For example, the study of Sarang & Srivastava (2012) underlined the key role that organizational culture plays in improving the levels of employee engagement. This was supported through the conduction of a quantitative survey where 247 executives from the Indian private banking sector took part.

**Figure 1: Research model of Park & Doo (2020)**



The same was also supported in the study of Parent & Lovelace (2018) that revealed the influence of a positive organizational culture on employee engagement within an organization. Nevertheless, employee engagement is classified in organizational engagement and job engagement which are also associated with higher levels of adaptability in work.

Likewise, Fidyah & Setiawati (2020) also examined the correlations between organizational culture, employee engagement, and employee performance. For that purpose, questionnaires were handed out in 65 employees. Regression analysis was employed for interpreting data. The results indicated that organizational culture empowers employee engagement. In this context, key principles of an efficient organizational culture are Innovation and courage to take risks, Attention to detail, Human-orientedness, Team-orientedness, and Stability. Additionally, the results showed that both culture and engagement lead to improved satisfaction from work as well as to enhanced employee performance.

Similarly, Rofcanin et al. (2017) examined the impact of organizational culture on employee engagement and performance in Mexico. For addressing their research objectives, the authors distributed questionnaires in a sample of 654 subordinates and 134 supervisors. Regression analysis was used for examining the relationships between variables. Rofcanin et al. (2017) found that a family supportive organizational culture is positively associated with higher levels employee engagement, which in turn leads to better work performance. Results also showed that supervisors play a key role in formulating a family supportive organizational culture.

In relevance with this aim, the project has the following research hypothesis:

- To identify and characterize the effect of the organizational culture prevalent within the energy sector in Greece.
- To assess the levels of job satisfaction among employees of the energy sector in Greece.
- To investigate the levels of employee engagement in the case of within the energy sector in Greece
- To examine the impact of organizational culture applied by within the energy sector on job satisfaction
- To investigate the impact of organizational culture applied within the energy sector on employee engagement

### **3 Methodology**

#### **3.1. Research process**

Moving to the research design specifics, considering the utilization of quantitative research, the primary data collection method involved survey questionnaires. Questionnaires were handed out among the employees in the energy sector in Greece, employing a digital platform such as Google forms. The application of a simple random sampling technique ensured that each element within the selected population stands an equal chance of participation in the survey, aligning with established research methodologies (Saunders et al., 2016). Initially, 150 questionnaires were distributed, and 70 valid responses were gathered, achieving a response rate of 46 %.

#### **3.2 The Questionnaire**

The questionnaire was designed after the exploration of the relevant academic literature. In particular, the research instrument included 25 statements were respondents denoted their level of agreement/disagreement by using a five-point Likert rating scale (1=strongly disagree, 5= strongly agree). Statements were classified in three sections according to the fields under investigation, namely: Organizational culture, Employee engagement and Job satisfaction. The questions of Organizational culture were based on the studies of Okta et al. (2015) and Van Muijen (1999). Key sources for the section of Employee engagement were the studies of Anitha (2014) and Bedarkar & Pandita (2014). Lastly, the statements for Job satisfaction were taken from the studies of Torlak & Kuzey (2019). The questionnaire gathered also information regarding the demographic features of the participants (gender, age, educational level, position in the company, etc.).

### **3.3 Methods of Analysis**

The analysis of the primary data was conducted with SPSS v.25. First, descriptive statistics were used (means, standard deviations, etc.). Secondly, the internal consistency of each variable and the reliability of the questionnaire was tested with Cronbach A index, where in all cases was larger than 0,7, following the criteria mentioned by Malhotra & Bricks (2003; 2006). The interrelations between Organizational culture, Employee engagement and Job satisfaction were examined with Pearson Correlations and Linear Regression analyses.

## **4. Analysis**

### **4.1 Sample Demographics**

First of all, table 1 provides detailed information regarding the demographic features of the sample. As shown below, there are 25 male respondents, making up 35.7% of the total sample, and 45 female respondents, constituting 64.3%, leading to a total of 70 respondents. Regarding age, 15 respondents are aged between 18-30 years (21.4%), 9 are between 31-40 years (12.9%), 11 are between 41-50 years (15.7%), and 35 are aged 51 and above (50%). In terms of educational level, 15 respondents have a high school education (21.4%), 43 have a Bachelor's degree (61.4%), and 12 have a Master's or PhD degree (17.1%). Concerning working experience, 12 respondents have 1-5 years of experience (17.1%), 6 have 6-10 years (8.6%), 9 have 11-15 years (12.9%), 5 have 16-20 years (7.1%), and 38 have more than 21 years of working experience (54.3%). Finally, looking at the position within the organization, 54 respondents are middle-level managers (77.1%) and 16 are senior managers (22.9 %). The data shows that the majority of respondents are female, aged 51 and above, holding a Bachelor's degree, with over 21 years of working experience, and occupying middle-level managerial positions.

**Table 1: Sample demographics**

<b>Gender</b>				
	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Male	25	35,7	35,7	35,7
Female	45	64,3	64,3	100,0
Total	70	100,0	100,0	

<b>Age</b>				
	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
18-30	15	21,4	21,4	21,4
31-40	9	12,9	12,9	34,3
41-50	11	15,7	15,7	50,0
51+	35	50,0	50,0	100,0
Total	70	100,0	100,0	

<b>Educational Level</b>				
	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
High school	15	21,4	21,4	21,4
Bachelor	43	61,4	61,4	82,9
Master/PhD	12	17,1	17,1	100,0
Total	70	100,0	100,0	

<b>Working Experience (in years)</b>				
	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
1-5	12	17,1	17,1	17,1
6-10	6	8,6	8,6	25,7
11-15	9	12,9	12,9	38,6
16-20	5	7,1	7,1	45,7
21+	38	54,3	54,3	100,0
Total	70	100,0	100,0	

<b>Position in the organization</b>				
	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Middle level manager	54	77,1	77,1	77,1
Senior	16	22,9	22,9	100,0
<b>Total</b>	<b>70</b>	<b>100,0</b>	<b>100,0</b>	

## 4.2 Correlations and Regression

Pearson Correlation analysis showed that overall, there is a statistically significant, strong and positive association between Organizational culture, Employee engagement and Job satisfaction. What is more, Employee engagement is also strongly linked with Job

satisfaction. In other words, positive organizational culture leads to higher levels of employee engagement and Job satisfaction. In the same length, higher levels of engagement lead to higher levels of satisfaction from work.

**Table 2: Correlations – Organizational Culture, Employee engagement and Job Satisfaction**

Correlations				
		Org_Culture	Engag	Job_Sat
Org_Culture	Pearson Correlation	1	,820**	,644**
	Sig. (2-tailed)		,000	,000
	N	70	70	70
Engag	Pearson Correlation	,820**	1	,723**
	Sig. (2-tailed)	,000		,000
	N	70	70	70
Job_Sat	Pearson Correlation	,644**	,723**	1
	Sig. (2-tailed)	,000	,000	
	N	70	70	70
**. Correlation is significant at the 0.01 level (2-tailed).				

In the next stages of the analysis, linear regression was used to identify the factors of organizational culture that shape Employee engagement and Job satisfaction respectively. Four models were employed. In the first model the dependent variable was Employee engagement and independent variables were factors of Organizational Culture as well as control variables (gender, age, educational level). The model was overall statistically significant with  $R=0,812$ ,  $R\text{ square} = 0,659$ ,  $p=0,000$ . The most significant predictors of employee engagement were: teamwork and collaboration among the staff and freedom at work.

**Table 3: Factors of Organizational Culture that drive Employee engagement**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,812 <sup>a</sup>	,659	,614	,51579

a. Predictors: (Constant), Educational Level, Gender, My firm search systematically for new products/services, Age, My firm allows freedom at a work, In my organization teamwork and collaboration are effectively practiced, My firm encourages innovation and creativity, My firm encourages new ideas about work organization

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31,345	8	3,918	14,728	,000 <sup>b</sup>
	Residual	16,229	61	,266		
	Total	47,574	69			

a. Dependent Variable: Engag

b. Predictors: (Constant), Educational Level, Gender, My firm search systematically for new products/services, Age, My firm allows freedom at a work , In my organization teamwork and collaboration are effectively practiced, My firm encourages innovation and creativity , My firm encourages new ideas about work organization

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,151	,491		,308	,759
	My firm encourages new ideas about work organization	,083	,095	,112	,873	,386
	My firm search systematically for new products/services	,092	,086	,103	1,071	,288
	My firm encourages innovation and creativity	,108	,090	,141	1,201	,234
	In my organization teamwork and collaboration are effectively practiced	,283	,084	,351	3,391	,001

My firm allows freedom at work	,240	,085	,310	2,809	,007
Gender	,072	,135	,042	,535	,595
Age	,065	,055	,096	1,176	,244
Educational Level	,107	,103	,080	1,037	,304

a. Dependent Variable: Engag

In the next model, which had the same design with different factors of organizational culture, it was found that the most significant predictor of employee engagement was accessibility to leadership. The model was overall statistically significant with  $R=0,775$ ,  $R$  square = 0,601,  $p=0,000$ .

**Table 4: Factors of Organizational Culture that drive Employee engagement (2<sup>nd</sup> Model)**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,775 <sup>a</sup>	,601	,556	,55357

a. Predictors: (Constant), Educational Level, Gender, Age, The values and ethics of our organization are clearly communicated to all employees., In my organization supervisors express concern about employees' personal problems, In my organization leadership is accessible and approachable for employees at all levels., My organization follows transparent processes about decision-making processes

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28,575	7	4,082	13,321	,000 <sup>b</sup>
	Residual	18,999	62	,306		
	Total	47,574	69			

a. Dependent Variable: Engagement

b. Predictors: (Constant), Educational Level, Gender, Age, the values and ethics of our organization are clearly communicated to all employees, In my organization supervisors express concern about employees' personal problems, In my organization leadership is accessible and approachable for employees at all levels., My organization follows transparent processes about decision-making processes

Coefficients <sup>a</sup>				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	,600	,504		1,190	,239
	The values and ethics of our organization are clearly communicated to all employees.	,009	,103	,012	,090	,928
	My organization follows transparent processes about decision-making processes	,165	,089	,208	1,854	,069
	In my organization leadership is accessible and approachable for employees at all levels.	,461	,088	,580	5,244	,000
	In my organization supervisors express concern about employees' personal problems	,106	,083	,136	1,279	,206
	Gender	,014	,147	,008	,095	,925
	Age	,006	,059	,009	,103	,918
	Educational Level	,160	,110	,121	1,464	,148

a. Dependent Variable: Engagement

In the next regression model the dependent variable was "Job satisfaction" and the independent variables were factors of Organizational Culture as well as control variables (gender, age, educational level). The model was overall statistically significant with  $R=0,663$ ,  $R\text{ square} = 0,440$ ,  $p=0,000$ . The most significant predictor of job satisfaction was systematic search for new products/services.

**Table 5: Factors of Organizational Culture that drive Job Satisfaction**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,663 <sup>a</sup>	,440	,367	,68054

a. Predictors: (Constant), Educational Level, Gender, My firm search systematically for new products/services, Age, My firm allows freedom at a work , In my organization teamwork and collaboration are effectively practiced, My firm encourages innovation and creativity , My firm encourages new ideas about work organization

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22,206	8	2,776	5,993	,000 <sup>b</sup>
	Residual	28,251	61	,463		
	Total	50,458	69			

a. Dependent Variable: Job\_Sat

b. Predictors: (Constant), Educational Level, Gender, My firm search systematically for new products/services, Age, My firm allows freedom at a work , In my organization teamwork and collaboration are effectively practiced, My firm encourages innovation and creativity , My firm encourages new ideas about work organization

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	,568	,648		,877	,384
	My firm encourages new ideas about work organization	-,021	,125	-,027	-,165	,870
	My firm allows freedom at a work	,146	,113	,184	1,296	,200
	My firm search systematically for new products/services	,407	,114	,442	3,577	,001
	My firm encourages innovation and creativity	,056	,119	,071	,471	,639

In my organization teamwork and collaboration are effectively practiced	,101	,110	,121	,917	,363
Gender	,123	,178	,069	,693	,491
Age	,111	,073	,160	1,525	,133
Educational Level	-,001	,136	-,001	-,010	,992

a. Dependent Variable: Job\_Sat

Finally, in the last regression model the dependent variable was also job satisfaction whereas the independent variables were other aspects of organizational culture. The model was statistically significant with  $R=0,675$ ,  $R\text{ square} = 0,455$ ,  $p=0,000$ . In this case, the most significant predictors of Job satisfaction were transparency in decision making units, accessibility to top leadership and supervisors concerns about employees' personal problems.

**Table 6: Factors of Organizational Culture that drive Job Satisfaction (2<sup>nd</sup> Model)**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,675 <sup>a</sup>	,455	,394	,66594

a. Predictors: (Constant), Educational Level, Gender, Age, The values and ethics of our organization are clearly communicated to all employees., In my organization supervisors express concern about employees' personal problems, In my organization leadership is accessible and approachable for employees at all levels., My organization follows transparent processes about decision-making processes

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22,962	7	3,280	7,397	,000 <sup>b</sup>
	Residual	27,496	62	,443		
	Total	50,458	69			

a. Dependent Variable: Job\_Sat

b. Predictors: (Constant), Educational Level, Gender, Age, The values and ethics of our organization are clearly communicated to all employees., In my organization supervisors express concern about employees' personal problems, In my organization leadership is accessible and approachable for employees at all levels., My organization follows transparent processes about decision-making processes

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	,550	,606		,908	,367
	The values and ethics of our organization are clearly communicated to all employees.	-,176	,124	-,216	-1,420	,161
	My organization follows transparent processes about decision-making processes	,281	,107	,345	2,626	,011
	In my organization leadership is accessible and approachable for employees at all levels.	,246	,106	,301	2,327	,023
	In my organization supervisors express concern about employees' personal problems	,335	,100	,417	3,366	,001
	Gender	,257	,177	,145	1,451	,152
	Age	,038	,071	,054	,536	,594
	Educational Level	,135	,132	,098	1,023	,310

a. Dependent Variable: Job\_Sat

## 5 Discussion & Conclusions

Organizational culture is a complex construct, which refers to the shared values, beliefs, norms, and assumptions that characterize an organization (Schein, 2004). It dictates how employees interact, communicate, and make decisions, influencing their work experiences and overall well-being (Kahn, 1990; Schein, 2004). On the other hand, job satisfaction as a term, measures an individual's contentment with their work (Brown & Leigh, 1996). When employees feel valued, respected, and empowered, their engagement levels rise, leading to increased motivation, dedication, and performance (Harter et al., 2002). Lastly, employee engagement encompasses an individual's emotional, cognitive, and behavioural involvement in their work (Saks, 2006). Engaged employees not only find satisfaction in their work but actively contribute to their organization's goals, fostering innovation, productivity, and overall organizational success (Harter, Schmidt, & Hayes, 2002).

Linking literature with research, the results of the empirical study showed that companies adopt some aspects of the Clan and Adhocracy organizational cultures, using the classification provided by Lund (2003). The analysis of the literature showed that these types of cultures have better outcomes for the personnel and the organization itself (Lund, 2003; Mesfin et al., 2020). In particular, the organizational culture within the energy sector gives emphasis on teamwork and collaboration and in the systematic search for new products and services. Moreover, there is clarity of communication regarding organizational values and ethics and encouragement of innovation and creativity within the firm. What is more, top leadership is overall accessible and approachable. However, shortcomings were detected in fields such as supervisors' concern about employees' personal problems, use of personnel's skills to develop better products and service, and balance between work and personal life. within the energy sector it is needed to improve its performance in this fields to more towards more positive and efficient culture schemes.

The analysis also showed that employee engagement was fluctuated at satisfactory levels. However, there is sufficient room for further improvement. In more details, there were some aspects, which highlighted the high levels of employee engagement, namely: understanding of how employees' work contributes to the organization's goals; dedication towards the organization; motivation to go beyond formal job responsibilities to help the organization succeed. In contrast, Trust in the leadership to make good decisions, Opportunities for professional growth and development within the organization and support of the work environment for employees' well-being need further improvement. The energy sector should work in these domains to enhance further the levels of engagement of its personnel. Lastly, Job satisfaction in the Greek energy sector was also ranged at moderate to high levels. Overall, employees stated that they are satisfied with the kind of work done and for that reason they don't think to quit their job. Nevertheless, also in this domain there is room for further improvement.

Additionally, the results indicated that organizational culture is positively associated with job satisfaction. In other words, a positive and supportive culture leads to higher levels of job satisfaction. This was also supported in the previous studies of Soomro & Shah (2019), Meng and Berger (2019), Lund (2003), Mesfin et al. (2020), Jigjiddorj et al. (2021), Park & Doo (2020), and Karyotakis & Moustakis (2016). It seems that organizational culture is a key determinant of job satisfaction. In this context, the energy sector should adopt more aspects of people-oriented cultures (clan and adhocracy) for improving more the job satisfaction levels of its personnel. The most important culture aspects that drive job satisfaction, were

systematic search for new products/services, transparency in decision making units, accessibility to top leadership and supervisors concerns about employees' personal problems. As note earlier, these factors underline the need to adopt more people oriented organizational culture styles.

In the same length, the analysis indicated that organizational culture leads to higher levels of employee engagement. In other words, there is a positive association between culture and engagement of the staff. That was also supported in the studies of Sarang & Srivastava (2012), Parent & Lovelace (2018), Fidyah & Setiawati (2020), Rofcanin et al. (2017), and Meng and Berger (2019). In this case, the most important factors of organizational culture that lead to employee engagement were teamwork and collaboration among the staff, freedom at work, and accessibility to leadership. It is indicative that the ties between culture and engagement were stronger than the ties between culture and satisfaction from work.

Lastly, it was found that the demographics characteristics of the participants, such as educational level, age and position in the company did not influence their opinion and views towards organizational culture as well as their levels of job satisfaction and employee engagement respectively. Minor differentiations were detected according to gender but still were not important. It seems that employees have stable and concrete views towards the issues under investigation.

Overall, the research showed that a supportive organizational culture is a key determinant of job satisfaction and employee engagement. In this context, it should move towards more people-oriented culture schemes (clan and adhocracy). This will improve substantially its overall performance in the competitive landscape of the Greek energy sector.

The implications that may emerge from the findings are anticipated to offer valuable guidance to the sector. These insights can inform the assessment of the company's organisational culture, paving the way for targeted improvements in job satisfaction and employee engagement. Consequently, such enhancements are poised to culminate in heightened overall performance and bolstered competitiveness, not only within the confines of the company but also in the broader landscape of the energy sector.

## 5.1 Research Limitations

The main limitations of the current dissertation include the following issues:

- The sample size of 70 employees limits the generalizability of the findings to the entire population of the broader Greek energy sector. A larger sample size might provide more robust and generalizable results.
- The sample may not be fully representative of the entire workforce, potentially introducing bias. Factors such as job roles, departments, and geographic locations within the company might not be evenly represented, which can affect the study's outcomes.
- The reliance on self-reported data for measuring job satisfaction and employee engagement can introduce response biases such as social desirability bias or recall bias. Employees might respond in ways they perceive as favourable rather than providing true reflections of their experiences.
- While regression and correlation analyses can identify relationships between variables, it may not fully capture the complexities of organizational culture, job satisfaction, and employee engagement. Qualitative methods, such as interviews or focus groups, could provide deeper insights and context to the quantitative findings (Wilson, 2003).
- Employee engagement and job satisfaction may be influenced by factors that were not mentioned in the current study.

## 5.2 Suggestions for further research

In relevance with the limitations of the study mentioned above, suggestion for further research includes the following issues. Firstly, expanding the sample size to include a larger and more diverse group of employees across different departments and locations within the energy sector would improve the generalizability and robustness of the results. Future studies could also employ longitudinal designs to capture changes over time, providing insights into causal relationships between organizational culture, job satisfaction, and employee engagement. Moreover, incorporating qualitative methods, such as interviews or focus groups, alongside quantitative approaches, could offer deeper insights into the contextual factors influencing employee experiences. Finally, future research should consider the impact of external factors, such as economic conditions and regulatory changes, which may influence job satisfaction and employee engagement in the context of the Greek energy sector.

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