

TOTAL QUALITY MANAGEMENT IN PUBLIC SECTOR, CASE STUDY: CUSTOMS SERVICE

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Abstract

This current article aims to investigate the questions that are related to the existence of the contexts of the New Public Management and the implementation of the principles of the Total Quality Management and, on the other hand, the quest of the choices that have to be adopted, investigating as a case study the Customs Service. In Greece, we could realize for the first time evidence of TQM in the L.2880/2001/FEK 9-3.09.2001 "Programme Politeia for the reform and modernization of the Public Management and other provisions". Later on, the L.3230/2004/FEK-44.02.2004 "Establishment of a system of management with the target of the measurement of the efficiency and other provisions" was voted. Since then, other provisions have been voted that regulate matters of implementation of the procedures of NPM and of TQM in the public sector. A perch is taken by the L.4336/2015/FEK94.24-08-2015, which states the basic strategic lines for the reform of the administrative structures and procedures, the streamline of the human resources and also the transparency, the accountability, as well as the prevalence of the electronic governance. The Customs, since the 1st of May 2017 belongs to the Independent Authority of Public Revenue (IAPR). It is shown as the characteristic example of the study for implementing the Total Quality Management and illustrates at the same time the weaknesses and the strengths.

Keywords: Total Quality Management, New Public Management, Customs, Organizational and Managerial Systems

JEL classification: M1, M15, M16, M19

1. Introduction

The administrative reforms that have begun to establish in the last decades of the 20th century in the developed countries, which have already advanced administrative systems, constituted a comparative model for Greece. According to the exemplars these countries, the New Public Management (NPM) has adopted, which has been implemented efficiently for years in the private sector. As part of the administrative reforms, the Independent Authority of Public Revenue (IAPR) has been created for the earnings and the management of the public revenues. The Customs Office, as a component of IAPR, imposes the NPM and the principles of the Total Quality Management, which is the object of this research. In this article, a theoretical approach is presented briefly and it is connected with the Customs Office. It is also presented the methodology, the statistic analysis and the outcome of this relevant research, as well as the conclusions and the formulation of proposals for future research. For start, the first chapter is the introduction, which introduces to the reader the meaning of this specific research and presents in short the structure of the article. In the second article is presented a retrospect of researches and studies that are related to the findings of the research. It is also presented the temporal approach of the Total Quality and the TQM, as well as its relationship with the NPM. This chapter continues with the presentation of the aim of this research, through the structures and the function of the Customs, under the management of IAPR. The

third chapter is referred to the subject of the research and the questions that are under research, as well as the sampling and the collection of data. In the fourth chapter the two groups of the research, the structure of the questionnaires and the method of the statistic analysis are presented. As research samples are referred the two groups from which, the first one is the Customs Officers (internal clients) and the other is the Customs Brokers, as Customs representatives of the traders (private and businessmen). The fifth chapter includes the conclusion of the answers of the two questionnaires, in relation to the condition of the Customs (and the public management as a consequence) and its relationship with the TQM. Finally, this chapter is completed with the formulation of proposals for the completion of the reform and for the future research.

2. Background literature review

Several researches and studies over the last few decades focus on issues relating to the implementation of principles of TQM.

In view of the changes in the public sector of N. Zealand, this study (Boston, 2000), raises questions that result and refer to the systemic change throughout the world. Questions, such as the timeliness of results evaluation and systemic reforms in public management over the last few years, in countries, such as Britain, Australia and N. Zealand. The study focused on changes occurring in daily practice, such as remuneration in accordance with performance on a finalized basis, distinction between the policies and the operations of public services, decentralization of human resource (HR) functions.

In this study (Vinni, 2007) there is an ambiguity between objectives relating to service provision oriented towards customer care and accountability to the public. This ambiguity creates problems associated with the identification of objectives, performance measurement as well as behavioral changes. This highlights the importance of executives, at government or service level in order to fulfill their role and meet the standards to lead the employees to a structured management environment, such as Total Quality Management.

The study of (Persson&Goldkuhl, 2007) concludes that e-governance constitutes a multi-disciplinary field, where there is need for ongoing research and the findings of the study should be widely used in public management. It is also focused on the more intensive use of Information and Communication Technologies in public management promoting a common course for management system and ICT.

Following the restructuring of public administration in the United States, a ten-year plan under the title "Report of the National Performance Review- NPR" was drafted, influenced by concepts of New Public Management at that time., to facilitate the transition from bureaucracy to an efficient and effective system of public management. Ever since that time it is regularly updated. According to (Thompson&Thompson, 2000) in 2000 the report focused in changes in federal bureaucracy. In this context, it recorded an improvement in customer service, highlighted quality management and leadership, as well as rationalization in management, control, reviews of programmes and transformation of structures.

The findings of the research, which was carried out by Quality Scotland Foundation (Q.S.F.) among 200 leading organization in Scotland according to (Soltani, Meer, Gennard, &Williams, 2000), involve improvement of employees performance, customer service, active participation of employees and performance-based evaluation approach, which constitute the generally accepted elements of Total Quality Management in order to properly understand the meaning of performance evaluation. This evaluation approach is in the interest of both sides, the employees and the parties transacting with the organizations.

According to the aforementioned research carried out by QSF, customer service, is the second most important criterion, for the HR performance measurement according to the key principles of quality management. This is in line with open organization without restrictions, as of the 1980's, when strict adherence to the procedures, according to Vemberian approach, was the dominant principle.

According to this study (I. Prajogo & M.McDermott, 2005) organizational culture is regarded as a fundamental aspect of the process of Total Quality Management. In the future organizational culture shall constitute the driving force behind TQM and it is suggested as a reason for longitudinal study.

2.1. The role of TQM in public administration

The present review examines the implementation of principles of Total Quality Management (TQM) through processes of New Public Management (NPM) and other methodological tools in relation to the situation that has been established so far in the public sector.

Customs Office has been selected for the purpose of the present case study as a public service that matches the characteristics of a bureaucratic organization, as well as the ones relating to the implementation of TQM principles through the process of New Public Management.

The revised Strategic Plan 2107-2020 of IAPR (Independent Authority of Public Revenue – AADE), refers to values such as the ones of Justice, Impartiality, Accountability, Integrity, Meritocracy, Knowledge and continuous Improvement, which are essential to open governance (AADE/ revised strategic plan 2017-2020)

According to OECD's report (2005), principles of good governance, such as transparency, accountability, justice, equality, efficacy and effectiveness, standards of ethical conduct, constitute the foundations of open governance.

In Greece the extended role of open governance is degraded in comparison to other countries of OECD and the E. U., since pathologies and malfunctions are hard to eliminate (OECD, 2011)

According to Politt and Summa (1997), Dionysopoulou P., & Kouremadi M., (2017), the principles of New Public Management are based on functions of classic management (programming, organization, decision making, management-coordination and monitoring).

The implementation of principles of New Public Management in public management, requires the transformation of bureaucratic types that have been maintained in the public sector for decades (Sotirakou, T. and Zeppou, M., 2016)

The organizational structure cannot be that of a Traditional Organization Pyramid that relies on strict hierarchy. The new organizational structure should be oriented towards synthesis, through processes that:

- Expand and strengthen the role of employees promoting autonomy, team work and responsibility that will match the result.
- Educational improvement in combination with the use of a constantly evolving technology for the employees, introduction of innovative actions and process changing.
- Organizational orientation towards working groups with relative autonomy, responsibilities as well as efficiency and effectiveness indicators for each activity and expansion of this concept throughout the organization hierarchy.

After the end of the war and the reconstruction efforts, the Greek state gave priority to the reorganization of public management.

Over the last three decades of the 20th century the administrative reforms were not included into a general strategic plan, were not functionally linked to other sectors of economy and society, and most of the times they did not entail adequate resources or appropriate implementation mechanisms with few exceptions, such as ASEP (Supreme Council for Civil Personnel Selection), KEP (Citizens' Service Centres), etc.

In accordance with the provisions of Article 3, par.Γ5 of the Law No.4336/2015/Government Gazette 94/14-08-2015 under the title "A Modern State and public administration" the country is bound to (Memorandum of Understanding for a three-year programme of EMS (European Stability Mechanism) develop and establish an effective and renowned public administration which shall be based on:

- The organization of simplified and operational structures.
- Establishment of flexible and operational administrative procedures.
- New Improved Human Resources System.
- Establishment of a programming, evaluation, transparency and monitoring system.
- Computerization of public management and free access to it (Maistros, P., 2016, p. 12-13)

A research conducted in 2007 (Renate E. Meyer et al., 2014) in public organizations in Austria and more specifically Wien (a city with long-standing administrative tradition, large number of workers and wider range of duties), among 271 self-evaluated senior executives about “bureaucrats and devoted public managers: institutional logic, professional identities and incentives for the provision of public services”, indicated the following:

- 110 individuals (rate 40,1 %) were attached to bureaucratic administrative practices (Staaatsdiener)
 - 33 individuals (rate 12,2%) supported a management approach (public managers)
 - 69 individuals (rate 25,5 %) exhibited mixed features of the two previous versions.
 - 59 individuals (rate 21,7 %) provided responses that did not match any of the abovementioned versions.

The research also indicated reform elements, such as quality improvement, measurement of effectiveness. Finally, the research indicated that, the desired organizational model is that of the traditional sector (Vemberian), although towards a reform direction (Renate E. Meyer et al., 2014).

Apart from the effective reform of the abovementioned structures and processes, the role of human resources and the potential motivation thereof, constitute another basic factor for the effective implementation of NPM.

- The two most important theoretical approaches (Dervitsiotis K, 2005, p. 101-109) regarding the identification and leverage of human needs are a) Maslow’s and b) Hertzberg’s hierarchy on needs. Maslow indicated that when an incentive given to the employees fully satisfies their needs, then it ceases to operate as an incentive. Therefore, the need of a highly paid employee operates as a greater incentive than the salary increase.
 - According to Hertzberg, the factors that motivate the employees can be categorized into endogenous or internal and exogenous or external. Endogenous factors are mainly the ones with the higher impact on the efficiency of the employees and rely on the chief executives to implement the appropriate mixture regarding the kind of remuneration. The conventional remuneration system (connection between the remuneration and mainly the length of employment) resulted to the inefficiency of employment, since the length of employment cannot be regarded as the main incentive for modern working conditions. Therefore, it falls under the organization’s management to introduce either individual, or group performance incentives or a combination of both.
 - As far as it concerns the target-setting process, which involves the participation of employees in developing and achieving the objectives, it is facilitated by MBO (Management by Objectives), which records the effectiveness and efficiency of work (Bourantas D, 2015, p. 341-350).

In Greece this was established by Law 3230/2004, according to which “all public services (Central Services, legal entities, local authorities of first and second degree) adopt a management system with objectives for the efficient operation of the public sector, as well as the response of human resources to the new standards of Public Management. (Tsimpoukidou et.al., 2013)

In the field of Human Resources Management (Dervitsiotis K, 2005, p. 71-76), the contribution of managers and employees constitutes an essential priority for the effective implementation of Total Quality Management. As indicated, corporate objectives cannot be achieved without meeting the employees’ needs. In this perspective the identification and fulfillment of modern employee needs by the management is important, in order to develop the appropriate incentives strategy.

The transition to a modern public management refers to modern structures, modern processes and collective effort by all parties involved on the basis of strategy.

The implementation of New Public Management processes and Total Quality Management principles, without constant update and communication of the new system to all relevant actors, does not promote its perspectives and hampers the development of a modern culture or

a new vision. Bourantas D., (2015, p. 568-571) regards Total Quality Management as an evolution of management after 1950 and describes various administrative approaches of management, including Total Quality Management as a “contemporary management trend” which arose out of necessity. This necessity involves the demands of employees, the demands of entrepreneurs within the framework of competitiveness as well as the consumers’ demands for quality. Total Quality Management developed over the last few decades in an environment of new technologies, brain and knowledge storming, establishment of new forms of labor guided by the market mechanisms, determining a framework of activities, such as:

- The development of a strategic and operational activity and vision according to the principles of New Public Management.
- The planning of structures and processes based on this strategy.
- The establishment of a remuneration and evaluation system on the basis of target setting in this sense.
- The coexistence and training of employees and managers en esprit de corps
- Targeted action of the organization’s management for the formulation of a new code of ethics and the creation of a new vision.
- Monitoring and evaluation of the new management system’s efficiency and effectiveness using measurement indicators.

Historically, public management is structured around European standards. (Kriemadis TH and Christakis M, 2009, p. 105-109).

However, it may also benefit from the constant and uninterrupted implementation of methodological tools, such as benchmarking methodology, Common Assessment Framework (CAF), etc.

According to 5432479 Dionysopoulou P.& Matsouka P. (Sfakianaki E, 2015, p. 212) the implementation of a Common Assessment Framework entails several advantages , which mainly result from the opportunity of participation of all parties involved in decision making and implementation, by means of a creative communication between all the actors which enables the efficient utilization of resources with simultaneous improvement of the services quality.

The purpose of the present review is to outline the implementation of principles of Total Quality Management through the process of New Public Management at the Customs Office based on the strategic and operative planning thereof, therefore the means for the implementation thereof. It also attempts to set down the effectiveness thereof in service provision and the ability to use innovative and technological applications in order to provide certified services to the citizens and establish a new public service culture.

The methodological tool used consists of two questionnaires - one for the human resources of the customs office, representing the service providers and one for the transactors, representing the service receivers. The questions were related to the demographic data of the two population groups, on the one side and to their view on the operation of the customs office and the perspective of a service structured around the standards and principles of Total Quality Management, on the other.

Therefore, it focuses on the development of a total management model, within the framework of the management model implemented for several years in administratively developed countries and it is based on the introduction of management in the public sector in relation the implementation of principles of Total Quality Management.

This new management system coexists with and contradicts bureaucratic structures and processes and should highlight the need for new structures and processes. It will also contribute to the production of better-quality products and services for the transactors with least possible cost.

Finally, apart from setting down the progressive improvement of a public service, such as customs, this research aims at outlining the general conclusions to promote the adherence of public management to TQM principles.

2.2. The case of customs

Among the first institutions established in the former Hellenic state following the national revival in order to preserve territorial integrity and the state revenue for the operation of the state, were the regular (official, state) army, the Navy and the Customs Office.

The publication of a National Customs Code, an exemplary legislative text, that imposed customs procedures and contributed to the widespread adoption of commerce, constitutes a turning point in the history of Customs Office (Law 1165/1918-Government Gazette.59/21-03-1918).

Major turning-points as indicated on the webpage of AADE were also:

- Acquisition of vessels for the persecution of smuggling in 1931.
- Maastricht Treaty in 1993.
- In 2009 the necessary plans were outlined for the operation of an e-Customs environment.
- Activation of Customs Office within the framework of an upgraded operation of A.A.D.E. since 01-01-2017.

By Law No. 4389/2016/Government Gazette 94-27.05.16 the General Secretariat of Public Revenue was abolished and the Independent Authority of Public Revenue (A.A.D.E.) was established, according to the European and international standards for the independence of tax administration.

Ever since its establishment by Law N.4389/2016 “Establishment of an Independent Authority of Public Revenue”, IAPR (AADE) staying true to the concept of flexible and efficient tax administration, AADE enjoys functional, administrative and financial autonomy and subjects only to parliamentary scrutiny (N.4389/2016- Government Gazette.94/A/27-05-2016).

It also enacts all those provisions regarding the organization and operation thereof, elaborates strategic and business plans and draws up accounting reports after the end of the year which are placed on its website (AADE/Assignment-responsibilities).

As indicated in the introductory note of IAPR Commander (the independent authority for the collection and management of tax and customs revenue) its position, activity και assignment should “... match the needs of the society and the market...” determining its role as a social organization, according to the principles of management (AADE/ revised strategic plan 2017-2020).

Its long-term plan is determined by the adoption of 5 strategic objectives, which are based more specifically on action lines.

The 9th consecutive mid-term project-pillar of the Operational Plan 2017 presents the strategy of AADE for Human Resources Management.

It also elaborates on the recruitment, evaluation, and staff development system as well as the remuneration and incentive policy, objectively through an Integrated Human Resources Management Information System. Providing a modern Human Resources Management System, it refers to the important role of human resources in the development that gradually confers a new quality and vision to it.

The present Human Resources Management system bears limitations regarding employee placement, removal, evaluation, progress (in relation to personal career motivation) reward processes. There are also restrictions regarding the acceptance and the establishment of team work on the basis of effectiveness and efficiency.

The Authority conducts benchmarking within the European framework, with tax and customs administrations of countries with advanced management systems and its aspirations are included in a program, which is based on four “pillars” and forms a new Human Resources Management System.

The present situation with the important improvements in the structure and the operation of the customs office consolidates among workers and transactors the view that the implementation of principles of TQM through processes of New Public Management shall introduce a new culture to the customs office. This will allow it to shape its vision at a national level, contributing to the reform of the public management and at an international

level within the framework of the European Union (E.E.) and the World Customs Organization (WCO).

3. Methodology

For the purpose of the research two questionnaires were drawn up. One for the customs officers (internal clients) and one for the customs brokers (external clients) as customs representatives of the transactors (individuals and entrepreneurs)

The questions include demographic data and other information as introduction to the concept of Total Quality Management, the means for implementing it, and the process for the implementation of New Public Management in Customs Office. Non-implementation of other methodological tools such as Common Assessment Framework (CAF) in Customs, has given rise to questions referring to it highlighting its importance.

3.1. Sample Design and Data Collection

The questionnaire consists of Likert scale (5point scale), multiple choice questions.

The research was carried out at two major customs offices in the Attica basin, the customs office at Athens International Airport “El. Venizelos” and at A’ customs office of Piraeus, which bring together the largest number of employees and transactors in customs service nationwide. The questionnaires were handed out in person to the two research groups, consisting of 100 respondents each.

The sample of the customs officers was selected out of 2.073 customs officers (data 31-12-2017) as indicated (Operational Plan ΑΑΔΕ 2018), i.e. a rate of 5% and the sample of customs representatives out of a total of 2.686 workers in this field (data 2014), i.e. a rate of 4%, as indicated in a report of the Center of Planning and Economy Research in 2015.

Both samples were selected using the method of simple random sampling with a 10% maximum ratio estimator error per sample at a significance level of 5% (Zafeiropoulos, K., 2015, p. 153-160).

The research was carried out adhering to the principles of the Code of Conduct. Reliability regarding the respondent’s answers was achieved by means of an introductory note in the questionnaires referring to the purpose of the present research and the subject of the study. Anonymity was maintained while completing the questionnaire in order to comply with the principle of confidentiality. The questionnaires and the cover letter were submitted to the Customs Office.

3.2. Results

The analysis of the questionnaire includes three subsections:

The first includes the descriptive analysis of the questions to the employees, as well as crosstabs of the employee’s questions that correlate with each other using the Spearman Correlation Sig. coefficient (2-tailed), due to non-regular distributions.

In this subsection, the participation of women in a sample of 100 workers, with abstention rate of 9%, was 49% and of men 42%. Workers aged between (31-40 years old) represent 8% of the respondents, workers aged between (41-50 years old) 31%, workers aged between (51-60 years old) represent 36% and workers over 61 years old represent 16%. It is observed that aggregated rates of 52% of the workers are over fifty years old.

Sufficiently increased participation of college/high-school graduates at a rate of 23%, considerable participation of higher education graduates at a rate of 55%, satisfactory participation among holders of master degrees at a rate of 12% and participation among PhD holders at a rate of 1%, were observed in the same sample of participants.

In Table 1, a cumulative rate of 21,10% of the respondents (totally disagree 3,30% and disagree 17,80%) responded negatively to the question, a rate of 47,80% was neutral (neither agree / nor disagree) and a cumulative rate of 31,10% (agree 30 % and totally agree 1,10%) agreed. The increased neutrality rate indicates that about half of the participants were indecisive. The transition from the bureaucratic system to the new management system is in progress and the progressive conversion of this rate in favor of the complete and operational introduction and record of customs procedures constitutes a “challenge”.

Table 1: Record of customs procedures to date at the customs office

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	TOTALLY DISAGREE	3	3,0	3,3	3,3
	DISAGREE	16	16,0	17,8	21,1
	NOT AGREE / NOT DISAGREE	43	43,0	47,8	68,9
	AGREE	27	27,0	30,0	98,9
	TOTALLY AGREE	1	1,0	1,1	100,0
	Total	90	90,0	100,0	
Missing	12	1	1,0		
	13	9	9,0		
	Total	10	10,0		
Total	100	100,0			

Source: Sample survey among the employees at the Customs Office of the International Airport "El. Venizelos" and A' Customs Office of Piraeus (Sept.-Oct. 2018).

According to the question on whether they believe that the reform should pertain to staff issues, such as the participation in decision making, Table 2 indicates a cumulative rate of 87,90% in favor of the staff's participation in decision making (agree 62,60% and totally agree 25,30%) highlighting the willingness of the staff to participate in this management system.

Table 2: Participation of the staff in decision making, regarding the reform

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	TOTALLY DISAGREE	1	1,0	1,1	1,1
	DISAGREE	1	1,0	1,1	2,2
	NOT AGREE / NOT DISAGREE	9	9,0	9,9	12,1
	AGREE	57	57,0	62,6	74,7
	TOTALLY AGREE	23	23,0	25,3	100,0
	Total	91	91,0	100,0	
Missing	13	9	9,0		
Total	100	100,0			

Source: the same sample survey processing among employees at the Customs Office of the International Airport "El. Venizelos" and A' Customs Office of Piraeus (Sept.-Oct. 2018)

In Table 3, which refers to the ability of Heads of Units to set and allocate objectives and responsibilities, a rate of 25,30% responded negatively (totally disagree 4,40% and disagree 20,90%), a rate of 45,10% is neutral to this point of view (neither agree / nor disagree) and 29,60% accepts this point of view (agree 26,40% and totally agree 3,30%). It reflects the reality, since up to now target-setting process pertains to Heads of General Directorates, directorates and departments and not to the subordinates thereof, who constitute the vast majority of the employees and according to motivation theories incentives should be effective.

Table 3: The Heads of Units have the ability to set and allocate objectives and responsibilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	TOTALLY DISAGREE	4	4,0	4,4	4,4
	DISAGREE	19	19,0	20,9	25,3
	NOT AGREE / NOT DISAGREE	41	41,0	45,1	70,3
	AGREE	24	24,0	26,4	96,7

TOTALLY AGREE	3	3,0	3,3	100,0
Total	91	91,0	100,0	
Missing	13	9	9,0	
Total	100	100,0		

Source: same Survey Sample processing among workers at the Customs Office of the International Airport "El. Venizelos" and A' Customs Office of Piraeus (Sept-Oct. 2018)

Crosstab of the question on whether the employees believe that there should be a total reform against the question regarding their age, with a Correlation Coefficient: Spearman Correlation Sig.(2-tailed) = 0,000, indicate that there is 100% acceptance (63% simple and 37% full) among new employees aged between 31-40 years old and as the age increases acceptance is declining. Reaching the upper age group (more than 61 years old), the observed results such as 40% cumulative acceptance, 33% neutrality and 20% complete disagreement. The impacts of the bureaucratic management system, as well as the simultaneous effect of reform ideas, as indicated in Table 4, are clearly observed.

Table 4: Age (F2) * A total reform is desirable (F13) Crosstabulation

Count	F13					TOTAL
	TOTAL LY DISAG REE	DISAGRE E	NEITHER AGREE/N O R DISAGREE	AGREE	TOTALLY AGREE	
AGE (F2)	18-30	0	0	0	0	0
	31-40	0	0	0	63%	37%
	41-50	3%	7%	10%	40%	40%
	51-60	3%	9%	26%	44%	18%
	61 AND UP	20%	0	40%	33%	7%
TOTAL		6%	6%	21%	43%	25%

Source: same Sample Survey processing among employees at the Customs Office of the International Airport "El. Venizelos" and A' Customs Office of Piraeus (Sept.-Oct. 2018)

The second subsection indicates that in a sample of 100 transactors- customs representatives, with an abstention rate of 17%, women participated at a rate of 23% and men at a rate of 60%.

The transactors aged between (31-40 years old) represent 19% of the participants, the transactors aged between (41-50 years old) represent 13%, the transactors aged between (51-60 years old) represent 34% and transactors above 61 years old represent 10%. It is observed that a cumulative rate of 44 % of the workers is above fifty years old

As far as it concerns the education level, a small participation of compulsory education graduates at a rate of 2%, high participation of secondary education graduates at a rate of 46%, a sufficiently high participation higher education graduates at a rate of 31% and a small participation of master degree holders at a rate of 4%, are observed

In Table 5, a cumulative rate of 43,40% of the sample disagrees with the point of view that permanence in employment may inhibit the efficiency and effectiveness of the customs office (totally disagree 20,50% and disagree 22,90%), 14,50% neutral position (neither agree/nor disagree) and a cumulative rate of 42,10% expresses agreement (agree 25,30% and totally agree 16,90%).

Table 5: The permanence of the employees suspends the efficiency and effectiveness of the customs office

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
		TOTALLY DISAGREE	17	17,0	20,5
DISAGREE NOT AGREE / NOT DISAGREE	19	19,0	22,9	43,4	
	12	12,0	14,5	57,8	

	AGREE	21	21,0	25,3	83,1
	TOTALLY AGREE	14	14,0	16,9	100,0
	Total	83	83,0	100,0	
Missing	13	17	17,0		
	Total	100	100,0		

Source: same sample survey processing among customs representatives at the Customs Office of the International Airport "El. Venizelos" and A' Customs Office of Piraeus (Sept.-Oct. 2018)

In Table 6 a cumulative rate of 6 % of the participants (totally disagree 2,40% and disagree 3, 60%) responded negatively, a 15,70% was neutral (neither agree/ nor disagree) and a cumulative rate of 78,30% (agree 43,40% and totally agree 34,90%) agrees with the point of view that non-evaluation of the staff inhibits the efficiency and effectiveness of the customs office. It is also clearly indicated that for the transactors the evaluation of public service employees is unquestionable for the new management system.

Table 6: Non-evaluation of the staff inhibits the efficiency and the effectiveness of the customs office

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	TOTALLY DISAGREE	2	2,0	2,4	2,4
	DISAGREE	3	3,0	3,6	6,0
	NOT AGREE / NOT DISAGREE	13	13,0	15,7	21,7
	AGREE	36	36,0	43,4	65,1
	TOTALLY AGREE	29	29,0	34,9	100,0
	Total	83	83,0	100,0	
Missing	13	17	17,0		
	Total	100	100,0		

Source: Same sample survey processing among customs representatives at the Customs Office of the International Airport "El. Venizelos" and A' Customs Office of Piraeus (Sept-Oct. 2018)

In table 7, a cumulative rate of 68,70% responded positively (agree 28,90% and totally agree 39,80%). The orientation of the sample of respondents regarding the negative impact of bureaucratic procedures on the efficiency and the effectiveness of the public service is clearly indicated.

Table 7: The existence of bureaucratic procedures inhibits the efficiency and the effectiveness of the customs office

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	TOTALLY DISAGREE	2	2,0	2,4	2,4
	DISAGREE	6	6,0	7,2	9,6
	NOT AGREE / NOT DISAGREE	18	18,0	21,7	31,3
	AGREE	24	24,0	28,9	60,2
	TOTALLY AGREE	33	33,0	39,8	100,0
	Total	83	83,0	100,0	
Missing	13	17	17,0		
	Total	100	100,0		

Source: Same sample survey processing among customs representatives at the Customs Office of the International Airport "El. Venizelos" and the A' Customs Office of Piraeus (Sept.-Oct. 2018)

In table 8, the responses from the cross tabulation of the question on whether non-interopability of the customs office with other public services, that hinders customs

procedures and trade facilitation poses a threat to customs office, against the question that ranks the transactors-customs representatives according to their age, using Spearman Correlation Sig. (2-tailed) = 0,029 indicate the following:

Observing the rates of negative and neutral responses, the first age group between 18-30 years old (with total rates of negative responses 14% and neutral responses 0%) and moving forward to older age groups the response rate increases, reaching at the last age group (over 61 years old), with a total negative response rate of 20% and neutral response of 40%. The greatest rates of negative responses and reflection on whether and to what extent non-interoperability of the customs office with other public services, hinders customs procedures, among longtime employees is largely due to the influence of the bureaucratic system that they have served for years and also due to the lack of interoperability which required an increased number of employees in this field, therefore a corporative viewpoint.

The cumulative rate of acceptance in the first age group between 18-30 is extremely high (total rate of 86%) and gradually decreases as we move forward to older age groups, reaching the last age group (total rate of 40%), that confirms this conclusion as observed in table 8.

Table 8: Age (G2) * Non-interoperability of public services poses a threat for customs procedures and office (G35) Crosstabulation

		Count				
		G35				
		DISAGREE	NEITHER AGREE/NOR DISAGREE	AGREE	TOTALLY AGREE	TOTAL
Age (G2)	18-30	14%	0	43%	43%	100%
	31-40	5%	11%	26%	58%	100%
	41-50	0	23%	46%	31%	100%
	51-60	6%	18%	41%	35%	100%
	61 AND UP	20%	40%	20%	20%	100%
TOTAL		7%	18%	36%	39%	100%

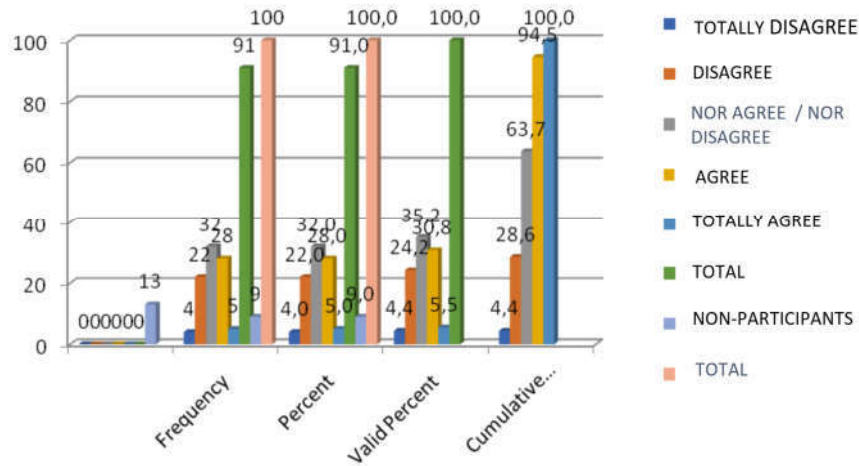
Source: Same sample survey processing among customs representatives at the Customs Office of the International Airport "El. Venizelos" and A' Customs Office of Piraeus (Sept.-Oct. 2018)

The third subsection, that attempts a correlation between common questions to the employees and the transactors, provides an overview of the total negative responses rate of 28,60% among the employees, as illustrated in diagram 7, regarding the contribution of a strategic and operational plan prepared by the Customs Office, within the Framework of the Independent Authority of Public Revenue., to the modernization of the Service, and 8,40% among the transactors, in diagram 8. A neutral responses rate of 35,20% among the employees compared to 36,10% among the transactors and a total acceptance rate of 36,30% among the employees compared to 55,40% among the transactors, were also observed.

The view is reflected, that despite their concerns, the transactors support the implementation of New Public Management, which facilitates an essential tool in comparison to the employees that appear to be less supportive of this view. Citizens may claim a better service quality from the employees and therefore an improved public management.

The diagram that follows reflects the view of the employees.

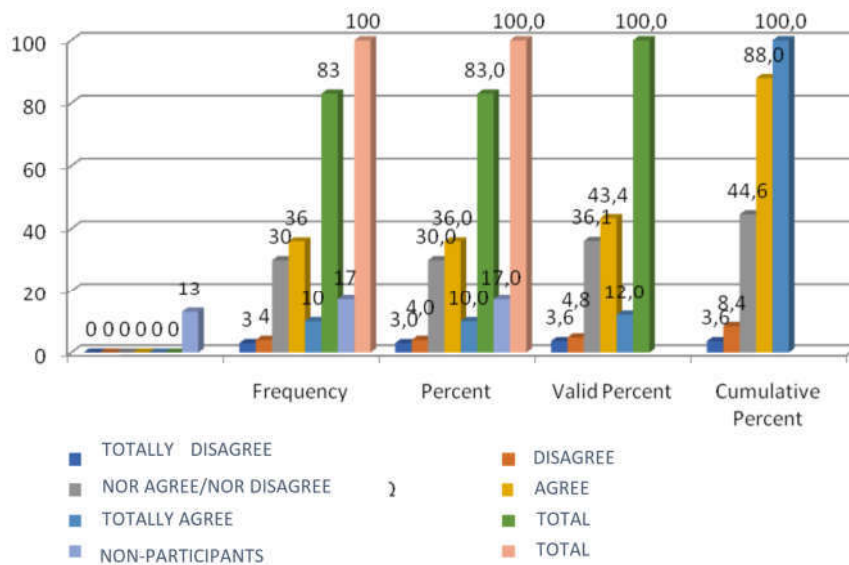
Diagram 1: The strategic and operational planning contributes to the modernization of the customs office



Source: Same sample survey processing among employees at the Customs Office of the International Airport “El. Venizelos” and A’ Customs Office of Piraeus (Sept.-Oct. 2018)

Respectively the following diagram reflects the view of the transactors

Diagram 2: The strategic and operational planning contributes to the modernization of the customs office



Source: Same sample survey processing among customs representatives at the Customs Office of the International Airport “El. Venizelos” and A’ Customs Office of Piraeus (Sept.-Oct. 2018)

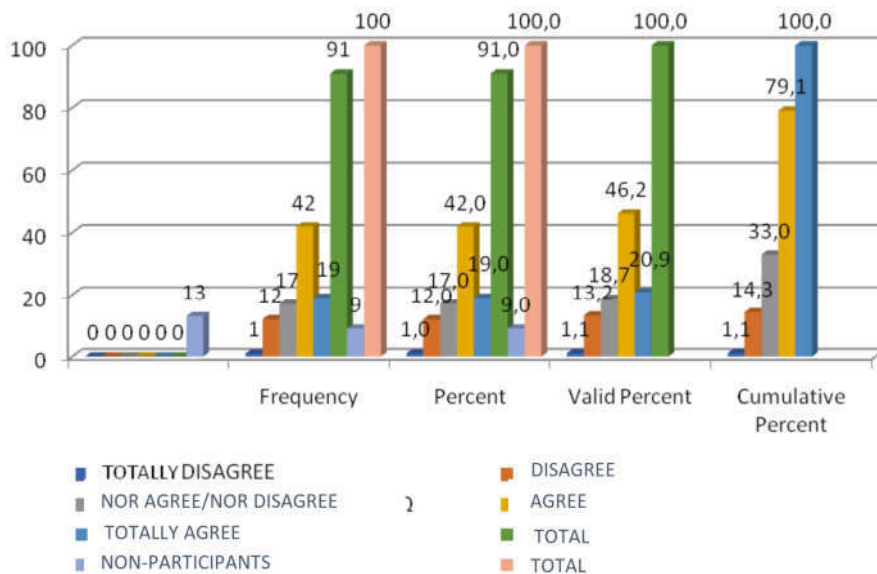
In the question regarding the record of the respondents’ views on whether the implementation of NPM and TQM methods shall introduce a new culture to the customs office for the employees, the total acceptance rate amounts to 67,10% for the employees in diagram 9 and 63,90% for the transactors, in diagram 10. Justified concerns may also be reflected in neutrality rates of 18,70% for the employees and 21,70% for the transactors and in negative response rates of 14,30% for the employees and 14,50% for the transactors.

Comparatively:

As far as it concerns the effect of basic TQM functions on the employees’ culture, total acceptance rates of 67,10% for the employees and 63,90% for the transactors, are observed. Assessable negative response rates of 14,30% for the employees and 14,50% for the transactors as well as neutral response rates of 18,70% for the employees in comparison to 21,70% for the transactors, which mainly refer to the effect of the bureaucratic management system are also displayed.

The viewpoint of the employees is also illustrated in the following diagram.

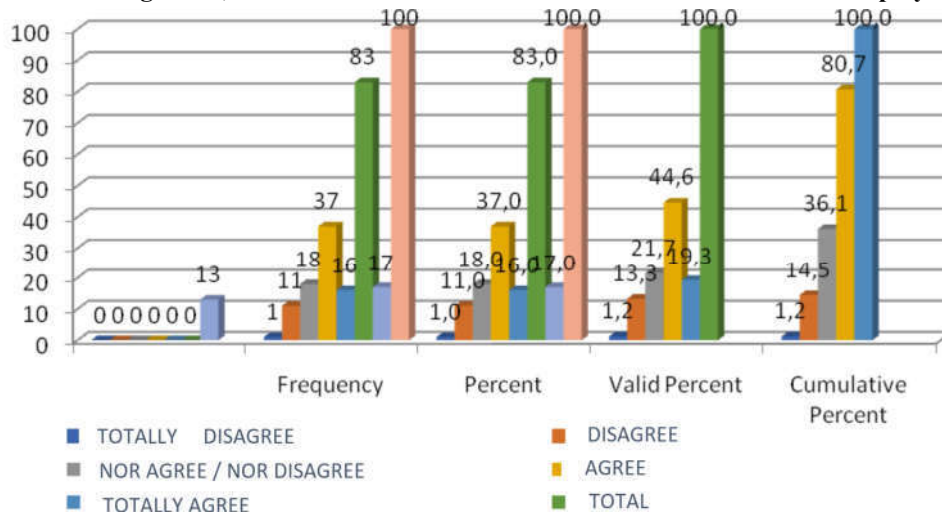
Diagram 3: The measurement of efficiency and effectiveness according to the processes of New Public Management, introduces new culture to the customs office for the employees.



Source: Same sample survey processing among employees at the Customs Office of the International Airport “El. Venizelos” and A Customs Office of Piraeus (Sept.-Oct. 2018)

Respectively the viewpoint of the transactors is illustrated in the following diagram.

Diagram 4: The measurement of efficiency and effectiveness according to the processes of New Public Management, introduces a new culture to the customs office for the employees



Source: Same sample survey processing among the customs representatives at the Customs Office of the International Airport “El. Venizelos” and the A Customs Office of Piraeus (Sept.-Oct. 2018)

4. Conclusions and recommendations

The approach of Total Quality Management as a comprehensive reform has become popular among the employees at the customs office as well as the parties transacting with it.

They aspire to the fact that the implementation of principles of T.Q.M. by means of New Public Management processes, shall introduce a new culture to the customs office and will allow it to shape its vision at a national level, contributing to the reform of public management in accordance with Boston’s study as well as at an international level in the context of the E.U. and WTO.

This reform could result from internal procedures with the use of the respective methodological tools such as Common Assessment Framework.

The adoption of an external reform in the context of principles of T.Q.M. provokes a negative attitude and raises concerns, which are also associated with an unsatisfactory level of

information and communication among the parties involved in the new management system. Those in charge in the customs office maintain a more cautious approach towards the reform in comparison to those who are not in positions of responsibility, who comprise the majority of the employees. The reform is also more popular among employees with previous experience in the private sector. Vinni's study also leads to a similar conclusion.

Key processes of N.P.M. and T.Q.M. such as strategic and business planning have not been communicated to the employees at the customs office, much less to customs representatives transacting with the customs office. Typical is the fact that the employees fully accept the relevance of the objectives and the business plan, but they don't share the same level of acceptance regarding the potentials of a strategic and business plan.

The extent to which information technology is used as well as the introduction of innovations, in line with the study of Persson & Goldkuhl, is very satisfactory. The introduction of innovation and IT, such as the Integrated Customs Information System (ICISnet) in combination with Risk Analysis, have added to the efficiency of the customs office by performing even more and complex procedures in much less time and without physical presence and have become widely accepted by the employees and the transactors. "According to Durst and Newell (1999), Dionysopoulou P. & Kouremadi M., (2017), internet as well as software systems used by organizations, such as "ERP, Knowledge Management" contribute to transparency and time-efficiency in implementing the organization's strategy. Therefore, it improves the efficiency and effectiveness of each organization using technological innovation".

Regarding customs processes, the employees share the opinion that bureaucratic processes continue to exist, but in their perception, they are in a transitional phase and they are increasingly concerned mainly about time conjuncture. This can be explained by the fact that the employees comprehend the progress that has been made on a daily basis, in comparison to the past, but they also acknowledge that bureaucracy and lacking process organization that still exist to a lesser extent, constitute inhibitory factors, in line with the findings of Thompson and Thompson's report. The same findings also apply to the transactors, who experience bureaucracy, but acknowledge the changes that have been made to structures and processes, whereas new transactors are in favor of further redesign of structures and processes.

The employees support an evaluation based on objective parameters, but they don't question employment permanence. They are also in favor of target-setting and incentives that must be shaped, according to the procedures laid down by the system and involve the participation of all employees. They fully accept team work and efficient performance and point out their willingness to participate. They clearly refrain from practices of the past regarding employment, which must be carried out according to the actual needs of the office, promotions that will be based on evaluation through a modern Human Resource Management system and the establishment of an objective incentive scheme, depending on the findings of Soltani, Meer, Gennard, & Williams, relating to a research on behalf of Q.S.F. Younger employees as well as those with a higher educational level are more receptive to the implementation of TQM principles using the structures of NPM.

Customs representatives transacting with the office acknowledge the improvements that affect their daily work and make it flexible and efficient, but they also note the lacking training of the staff in new methods of public service. Younger employees also pursue further redesign concerning well-established perceptions of the employees and the transactors, such as the effectiveness of employment permanence in the new management system. Older transactors are underpinned by an outdated management culture. In general, the opinion of mostly older age employees and transactors is clearly influenced by a bureaucratic management system. At this point one can easily observe similarities with the aforementioned Q.S.F. research, regarding the precedence of transactors' contentment over the strict adherence to the processes according to Vemberian approach.

The new management system establishes target-setting processes with the participation of all the parties and measurable results. The predominance of the new system shall bring about a new work routine for employees and transactors. This change shall breath a new vision into the public management and public service in general, as referred to in the study of Prajogo and McDermott.

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