

**THE IMPLEMENTATION OF DEMING'S THEORY
OF QUALITY MANAGEMENT IN
GREEK PUBLIC ADMINISTRATION**

Anastasia Sioutou

A Dissertation submitted to the Three-member Examination Committee for Partial
Fulfillment of Requirements for the Degree of Doctor of Philosophy of the
Department of Sports Organization and Management of the University of
Peloponnese.

Sparti, 2020

Proved by the Three-Member Examination Committee:

1. Kriemadis Thanos, Professor

2. Antonios K. Travlos, Professor

3. Verdis Athanasios, Assistant Professor

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DEDICATION

To my family.....

ACKNOWLEDGEMENTS

The author would like to express her sincere gratitude to Dr. Thanos Kriemadis, Chairman of the Dissertation Committee, who took the time and energy to direct and support all facets of this study. Gratitude and appreciation to Dr. Antonios Travlos and Dr. Athanasios Verdis for their assistance with the statistical analysis of the data. Gratitude and appreciation are extended to Dr. Alkistis Papaioannou where her appraisals and suggestions of the study were very helpful and also her assistance with the statistical analysis of the data. Last but not least, I would like to express my thanks to my family and friends for their unlimited support.

ABSTRACT

Anastasia Sioutou: The implementation of Deming's theory of quality management in
Greek public administration

(Under the supervision of Dr. Thanos Kriemadis Professor)

The primary purposes of this study were: (a) to evaluate to what extent the Deming Management Method is being implemented in Greek Public Administration; (b) to examine to what extent the administrative executives of Greek Public Administration believe that Deming Management Method adds value to the organizations of Greek Public Administration; (c) to study to what extent the administrative executives of Greek Public Administration have the intention to implement Deming's Management Method in their organizations in the future; (d) to investigate to what extent the administrative executives of Greek Public Administration are satisfied from the level of organizational performance as measured by satisfaction levels in relation to the key performance indicators of their organizations (goals, human resource, suppliers, improvements) and (e) to examine the relationship between the key factors of Deming Management Method (Deming on People, Deming on Leadership, Deming on Education and Training, Deming on Suppliers and Deming on Systems) and the key performance indicators (goals, human resource, suppliers, improvements) of the abovementioned organizations. The questionnaire of Deming Management Method, consisted of 59 questions developed by (Kriemadis & Sioutou, 2019), and demographic characteristics. Valid questionnaires were received from 334 senior and junior level public administrators of Greek public administration. The findings of this study were as follows: 1. Deming Management Method is applied to a mediocre extent in Greek Public Administration; 2. The administrative executives of Greek Public Administration believe in a great extent that Deming Management Method adds value to the organizations of Greek Public Administration; 3. The administrative executives of Greek Public Administration have in a great extent the intention to implement Deming's Management Method in their organizations in the future; 4. Medium level of satisfaction of the administrative executives was found con-

cerning the organizational performance in the abovementioned organizations as measured by satisfaction levels in relation to the key performance indicators of their organizations (goals, human resource, suppliers, improvements); 5. There was a strong and positive relationship between the key factors of Deming Management Method and the specific key performance indicators of the questionnaire, that measure the performance of public administration organizations, through the satisfaction level of the administrative executives of public administration, except the key factor “Deming on Systems”.

Keywords: Quality Management, Deming Management Method, Greek Public Administration.

ΠΕΡΙΛΗΨΗ

Αναστασία Σιούτου: Η εφαρμογή της θεωρίας του Deming σχετικά με την διοίκηση ποιότητας στην Ελληνική Δημόσια Διοίκηση
(Με την επίβλεψη του Δρ. Κριεμάδη Αθανάσιου, Καθηγητή)

Σκοπός της παρούσας μελέτης ήταν να: (α) αξιολογηθεί ο βαθμός εφαρμογής της Μεθόδου Διοίκησης του Deming στην ελληνική Δημόσια Διοίκηση, (β) να εξεταστεί ο βαθμός στον οποίο τα διοικητικά στελέχη της Δημόσιας Διοίκησης πιστεύουν ότι η Μέθοδος Διοίκησης του Deming προσθέτει αξία στον οργανισμό τους, (γ) να μελετηθεί ο βαθμός στον οποίο τα διοικητικά στελέχη της ελληνικής Δημόσιας Διοίκησης έχουν την πρόθεση να εφαρμόσουν τη Μέθοδο Διοίκησης του Deming στην υπηρεσία τους στο μέλλον, (δ) να διερευνηθεί ο βαθμός στον οποίο τα διοικητικά στελέχη της ελληνικής Δημόσιας Διοίκησης είναι ικανοποιημένα από το επίπεδο της οργανωσιακής επίδοσης όπως μετρήθηκε με τα επίπεδα ικανοποίησής τους σε σχέση με τους βασικούς δείκτες επίδοσης των οργανισμών τους (στόχοι, ανθρώπινοι πόροι, προμηθευτές, βελτιώσεις) και (ε) να εξεταστεί η συσχέτιση μεταξύ των βασικών παραγόντων της Μεθόδου Διοίκησης του Deming («Deming στο Ανθρώπινο Δυναμικό», «Deming στην Ηγεσία», «Deming στην Εκπαίδευση και την Επιμόρφωση», «Deming στους Προμηθευτές» και «Deming στα Συστήματα») και των δεικτών επίδοσης (στόχοι, ανθρώπινοι πόροι, προμηθευτές, βελτιώσεις) των οργανισμών της ελληνικής Δημόσιας Διοίκησης. Το ερωτηματολόγιο της έρευνας σχετικά με την Μέθοδο Διοίκησης του Deming, αποτελείται από 59 ερωτήσεις που αναπτύχθηκαν από τους (Kriemadis & Sioutou, 2019), και δημογραφικά χαρακτηριστικά. Συγκεντρώθηκαν 334 έγκυρα ερωτηματολόγια από διοικητικά στελέχη της ελληνικής Δημόσιας Διοίκησης. Από τα ευρήματα της έρευνας διαφαίνεται ότι: 1. Η μέθοδος Διοίκησης του Deming εφαρμόζεται σε μέτριο βαθμό στην ελληνική δημόσια διοίκηση. 2. Τα διοικητικά στελέχη της ελληνικής Δημόσιας Διοίκησης πιστεύουν σε μεγάλο βαθμό ότι η Μέθοδος Διοίκησης του Deming προσθέτει αξία στην υπηρεσία τους. 3. Τα διοικητικά στελέχη της ελληνικής Δημόσιας Διοίκησης έχουν σε μεγάλο βαθμό την πρόθεση να εφαρμόσουν τη Μέθοδο Διοίκησης του Deming στις υ-

πηρεσίες τους στο μέλλον. 4. Διαπιστώθηκε μέτριο επίπεδο ικανοποίησης των διοικητικών στελεχών όσον αφορά στην οργανωσιακή επίδοση στους προαναφερθέντες οργανισμούς, όπως μετρήθηκε με τα επίπεδα ικανοποίησης σε σχέση με τους βασικούς δείκτες επίδοσης των οργανισμών τους (στόχοι, ανθρώπινοι πόροι, προμηθευτές, βελτιώσεις) 5. Υπήρξε μια ισχυρή και θετική συσχέτιση μεταξύ των παραγόντων της Μεθόδου Διοίκησης του Deming και των συγκεκριμένων δεικτών επίδοσης του ερωτηματολογίου, που μετρούν την επίδοση των οργανισμών της δημόσιας διοίκησης, μέσω του βαθμού ικανοποίησης των διοικητικών στελεχών της, εκτός του παράγοντα Deming στα Συστήματα".

Λέξεις κλειδιά: Διοίκηση Ποιότητας, Μέθοδος Διοίκησης του Deming, Ελληνική Δημόσια Διοίκηση.

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List of Abbreviations

- ASQ: American Society for Quality Control
- DMM: Deming Management Method
- EFQM: European Foundation of Quality Management
- EOQ: European Organization for Quality
- EUPAN: European Public Administration Network
- JUSE: Union of Japanese Scientists and Engineers
- MBNQA: Malcolm Baldrige National Quality Award
- NPM: New Public Management
- OECD: Organization for Economic Co-operation and Development
- PA: Public Administration
- PDCA: Plan Do Check Act
- PDSA: Plan-Do-Study-Act
- QM: Quality Management
- SQC: Statistical Quality Control
- TQM: Total Quality Management

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CHAPTER I

INTRODUCTION

The current doctoral thesis deals with the implementation of W. Edwards Deming's theory of Quality Management in Greek Public Administration and its possible impact on its structure, as it is called to operate in the context of globalization and new geopolitical and economic conditions.

1.1. Topic and Context Background

1.1.1. Greek Public Administration Challenges in the new Era

Governments worldwide, face complex, multi-dimensional and global challenges at a social, geopolitical and economic level, occurring due to a profound transformation of the world order. At the social level, managing population balance and density levels, as also movement of refugees and migration, require sustainable solutions. Climate and environmental changes, as also energy resources management, require immediate and effective handling. The major structural crisis of the past decades has affected the global economy in financial matters, especially at the expense of governments, bringing about crucial changes in their macro environment with all the implications (Schmidhuber & Wiener, 2018).

The domino of global challenges has inevitably influenced Greek reality and it is a challenge for Greek public administration to adapt effectively to the changing demands. It is vital, that Greek public administrators overcome the conditions of low administrative capacity and increase the effectiveness of government, in relation to the international context, in order to adequately support the Greek economy as well as its citizens. Public administration executives are called to face these issues and thinking “outside the box” and utilize innovative strategies to manage not only processes but the people responsible for their development and implementation (Zurga, 2013).

The financial crisis have had a disastrous effect on both economy and society and led to unemployment, ultimately poverty, social exclusion and various health issues, reducing suddenly and drastically the standard of living of Greek citizens. The Memorandum of Understanding that the Greek government signed, with EU / IMF creditors (Enhanced surveillance framework for Greece, 2010), on controlling its deficit, has accelerated the need for reforms and structural changes in Greek public administration.

Additionally, the need for system-level transformation has arisen at the same time as continuous improvement in organizational performance. These both types of changes also require qualified individuals, who will be able to implement both types of changes. Furthermore, the aforementioned reforms and structural changes may take a long time to be achieved, as they are connected to the cultural change of Greek public sector, imply changes to existing norms, and require constant training of a large number of senior and junior level public administrators to work in new ways (Mylonas, 2019).

1.1.2. Global Trends in Public Administration

Two studies that performed after the crisis emerged, for the European Commission in 2010 and 2012, indicated that the member states' National action programs were focusing to: (a) improve the efficiency and productivity of Public Administration, through the rationalization of public costs and the review of procedures in order to reduce the administrative burdens for a better service to citizens and organizations, (b) incorporate the regulatory reform through regulatory impact assessment and better regulation and (c) support and facilitate innovation to boost the economy. According to the OECD Innovation Strategy, in order to successfully address the future of sustainable Public Administration, three basic elements are needed: (a) Innovation, through learning organizations, partnerships and employees participation. Learning organizations have the capacity to adapt and compete through learning as they involve interrelations between individual behaviors, team organization, and organizational practices and structure, (b) Continuous improvement in PA organizations, through values-driven culture and leadership, skilled and effective public servants and responsive and adaptive public employment systems and (c) Structural changes in the system, through applying civil service reforms identifying effective practices and tools to support their implementation, establishing indicators and benchmarking performance and building communities of practice and providing opportunities for networking (OECD, 2010). Another OECD's study also, proved that learning organizations are positively associated with Quality Management models and tools and that quality has become an indispensable part of national Public Administration development, being incorporated in strategic and developmental documents and plans (OECD, 2010).

Additionally, according to European Public Administration Network (EUPAN), one of the important elements in Public Administration is to effectively managing the

change. The challenges, that public administration faces, require adjustments in its organizational culture. The need for sustainable public finances as well as calls from citizens for accountability, more efficiency and effectiveness of public organizations, leads public administrations to become more result-oriented. Public administration leadership needs to develop effective decision-making, increased accountability, quality management in public services, teamwork, and emphasis on motivation and wellbeing at work for public employees, in order to effectively deal with the new challenges. The core values are professionalism, collaboration, innovation, engagement, sustainability and transparency. This increases the interest in quality management, new organizational structures/models and more inter-organizational coordination and collaboration. Quality management for public administration, in Europe, is a cornerstone and supports the development and learning at international, national, as well as at organizational level. Many efforts of developing quality models and tools and exploring different quality aspects have been applied during the past decades in public administration in Europe. However, there is a need for public administration to better interpret and apply the quality philosophy and effectively adapt to the rapid changing demands. Thus EUPAN network has contributed to the development and implementation of quality management and quality management tools and practices like the Common Assessment Framework (CAF) (EUPAN, 2019).

1.2. Theoretical Background

William Edwards Deming was considered as the man who discovered quality and as a quality pioneer (Aguayo, 1991; Creech, 1995; Gabor , 1992). He was catalyst for the history of management and his idiosyncratic style of management focused, apart from the functions of management and the best methods of managing an organization, simultaneously on both the qualitative (behavioral) and quantitative (technical) side of leadership (Mauro, 1999). These leadership's characteristics combined with ethical standards and strong humanistic leadership, transform the organization and lead to its best possible long-term results and sustainability. Deming argued that for leadership only the best efforts and experience are not enough. Hopes, without a method to achieve them, will remain just hopes (Nelson, 1984). Managers should have the knowledge of a theory of management, in order to improve quality and the competitive position of their

organization. Deming incorporated the distillate of his Management Method in the 14 Points for Management that applies anywhere, to industry, government and education (Deming, 1996).

Although Deming's management method was originally applied to the speculative sector, it has so far been applied to, non-profit sector such as health, education, the US federal government and other government worldwide (Calvo-Mora et al., 2006; Moeller, 2001; Nabitz et al., 2000; Naylor, 1999). According to the literature, firms, companies, governments and education institutes that have implemented Deming's management practices and values led to their performance improvement and excellence (Agrawal, 2019; Sharma & Kodali, 2008; Wu, 2015). Also, the existence of worldwide quality awards like Japan's Deming Prize, the USA's Malcolm Baldrige National Quality Award (MBNQA), and the EFQM Excellence Award (European Foundation for Quality Management), proves the need for Quality Management practices implementation (Sharma & Kodali, 2008). Many scholars have claimed that the implementation of transformational culture in an organization, supplier focus management and customer oriented framework, generates positive effect on quality performance, resulting in total customer satisfaction through continuous improvement and cost decrease (Flynn & Saladin, 2006; Hackman & Wageman, 1995; Mohammad Mosadegh Rad, 2006; Nasierowski & Coleman, 1997; Tata & Prasad, 1998;). Quality Management (QM) practices like leadership institution, top management commitment (Anderson, Rungtusanatham, & Schroeder, 1994; Powell, 1995), employee and management training (Adam et al., 1997; Kaynak, 2003; Saraph et al., 1989), teamwork, empowerment and encouragement (Adam, 1994; Dow et al., 1999; Powell, 1995) are expand organizational capabilities and provide comparative advantage for sustainability.

There are several researchers who claim that QM practices do not have the same effect on organization's performance (Flynn, Schroeder, & Sakakibara, 1995; Ravichandran & Rai, 2000). It is a fact that, in addition to quality management models, practices and tools for organizations, the adoption of quality philosophy, as outlined in Deming's management method, is fundamental. Deming's philosophy of quality management is based on a deep knowledge system and its theoretical framework, offered for practical application, including guidelines for implementation and not limitations. Moreover, it is a management philosophy that is deeply humanistic. This makes it time-

less and applicable to any organization. Deming's quality management method is a management philosophy that, despite the passage of time, it is always innovative, as it supports constancy of purpose for continuous improvement of quality, the overall transformation, of the organization, the social accountability and the use of quality practices in line with the rapidly and constantly changing consumers' demands of contemporary business environment (Petersen, 1999).

1.3. Purpose of the Study

The primary purpose of this study is to investigate whether the principles and practices of Deming's management method are applied in Greek Public Administration. More specifically, the study focuses on determining to what extent the senior and junior level Public administrators implement Deming's management method in Greek Public Administration organizations in the present, to what extent the senior and junior level Public administrators believe that Deming's management method adds value to their organization and to what extent they will implement it in the future. Additionally, the specific study focuses on determining to what extent the senior and junior level Public administrators of Greek Public Administration are satisfied from the level of organizational performance as measured by satisfaction levels in relation to the key performance indicators of their organizations (goals, human resource, suppliers, and improvements). Furthermore, the study aims to examine the relationship between the main factors, emerging from the 14 points of Deming's management method, and the organizational performance of the abovementioned organizations as measured by satisfaction levels in relation to the Key Performance Indicators of their organizations (goals, human resource, suppliers and improvements)

1.4. Research Questions

The research questions considered in this study were the following:

1. To what extent is the Deming's management method being implemented in the organizations of Greek public administration, by the senior and junior level public administrators?
2. To what extent the senior and junior level public administrators of Greek public administration believe that the Deming's management method adds value to their organization?

3. To what extent the senior and junior level public administrators of Greek public administration have the intention to implement the Deming's management method in their organizations in the future?
4. To what extent the senior and junior level public administrators of Greek public administration are satisfied with the achievement of the goals of their department?
5. To what extent the senior and junior level public administrators of Greek public administration are satisfied with the performance of the human resources of their department?
6. To what extent the senior and junior level public administrators of Greek public administration are satisfied with the collaboration with their suppliers?
7. To what extent the senior and junior level public administrators of Greek public administration are satisfied with the improvements they have applied on the operational level of their department?
8. Is there a significant correlation between the key factors of Deming's Management Method (Deming on People, Deming on Leadership, Deming on Education and Training, Deming on Suppliers and Deming on Systems) and the organizational performance of the abovementioned organizations as measured by satisfaction levels in relation to the key performance indicators of Greek Public Administration (goals, human resource, suppliers, improvements)?

1.5. Delimitations

The specific study was delimited at the Greek public administrators and in particular, to those who hold senior and junior level management positions in Greek Public Administration, Ministries and Regional Administration, who implement, according to the Constitution of Greece (Greek Parliament, 2008), primary sovereign and self-organization authority (Tsountas & Triantafyllopoulou, 2010).

1.6. Limitations

The study yields interesting insights. However, possible limitations of this research were acknowledged as the following:

1. A possible limitation in this study may be the honesty, accuracy and objectivity of the respondents when completing the questionnaire.
2. Another limitation could be the understanding of the principles and the practices offered by Deming.

1.7. Definition of Terms

Many definitions have been formulated for quality management and especially total quality management. Deming, with his philosophy of management, set the framework for quality management, which has been closely associated with total quality management over the years. Deming's method of managing quality goes far beyond management systems, as it is a philosophy that aims to transform the individual in order to transform the system/organization.

The core pillar of Deming's theory is a system of profound knowledge. According to Deming “there is no substitute for knowledge”. Theory is prerequisite for knowledge. However, as theories naturally lead to important questions, and as the answers are combined with experience and examples, new knowledge is discovered, described as profound knowledge. Deming’s system of Profound knowledge involves theories about systems, knowledge, variation and psychology which are regarded as one theory, since each one affects the other: (a) Appreciation for a system. Managers need to fully understand the system in which they are called to act, identify its components and their interactions, and direct their actions towards achieving its purpose; (b) Knowledge of the Theory of Variation. Understanding the concept of variation in an organization, in order to take action to eliminate the specific causes that cause the variation and provide a rational basis of prediction for results in the future; (c) Theory of knowledge on behalf of organizational management, which must understand and publicly state the philosophy of its action and (d) Knowledge of psychology so that they can understand the diversity of the individual, in order to apply different ways of approaching them. None of the above mentioned theories is new, but their incorporation into a system generates something new (Deming, 1986; Little, 1994).

According to Deming (1986), quality management are all the actions of leadership to diffuse quality culture throughout the organization, with the constant aim of con-

tinually improving processes, products and services through training and empowering employees and cooperating and mentoring suppliers, aiming to meet and exceed the needs of internal and external customers.

1.8. Significance of the Study

Sustainable Development of Public Administration a Global Demand

In 2015, all United Nations Member States agreed on a 2030 Agenda for Sustainable Development, which sets out a common plan for peace and prosperity, for people and the planet, now and in the future. The 17 Sustainable Development Goals (SDGs) are the result of decades of co-operation between countries and the United Nations, including the United Nations Department of Economic and Social Affairs. These goals are an urgent call for action by all countries, for global cooperation towards ending poverty and other deprivation, through strategies to improve health and education, reducing inequality and fostering economic growth, while tackling climate change and environmental changes (preserving oceans and forests). The 17 SDGs “that have been described as “the next era of human development that is transformational” (Caprani, 2016) are the following:

1. No poverty

Ending poverty in all its forms everywhere

2. Zero hunger

Ending hunger, achieving food security and improved nutrition and promoting sustainable agriculture

3. Good health and well-being

Ensuring healthy lives and promoting well-being for all at all ages

4. Quality education

Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all

5. Gender equality

Achieving gender equality and empowering all women and girls

6. Clean water and sanitation

Ensuring availability and sustainable management of water and sanitation for all

7. Affordable and clean energy

Ensuring access to affordable, reliable, sustainable and modern energy for all

8. Decent work and economic growth

Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

9. Industry, innovation and infrastructure

Building resilient infrastructure, promoting inclusive and sustainable industrialization and foster innovation

10. Reduced inequalities

Reducing income inequality within and among countries

11. Sustainable cities and communities

Making cities and human settlements inclusive, safe, resilient and sustainable

12. Responsible consumption and production

Ensuring sustainable consumption and production patterns

13. Climate action

Taking urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy

14. Life below water

Conserve and sustainably use of the oceans, seas and marine resources for sustainable development

15. Life on land

Protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification, and halting and reversing land degradation and halting biodiversity loss

16. Peace, justice and strong institutions

Promoting peaceful and inclusive societies for sustainable development, providing access to justice for all and building effective, accountable, inclusive institutions at all levels

17. Partnerships for the goals

Strengthening the means of implementation and revitalizing the global partnership for sustainable development (United Nations, 2020).

The 16th out of the 17 targets refers to the Public Administration of the countries as a catalyst for sustainable development. It refers to institutional dimensions of Public Administration for a shared and lasting prosperity, through:

1. Transparency with actions and possesses focusing on (a) National Open Government Data initiatives, (b) adoption of legal framework mandating or encouraging disclosure - targeted or not
2. Accountability with actions and possesses referring to constitutional or (a) legal provisions for government accountability, (b) charters for civil service, (c) organizational processes for accountability like performance processes
3. Anti-corruption with actions and possesses focusing on (a) adoption of anticorruption laws and creation of related institutions, (b) training and capacity building in public institutions
4. Inclusiveness of decision making processes with actions and possesses focusing on (a) changing the legal framework w.r.t. participation, (b) creating participatory channels and mechanisms, (c) transforming organizational culture to accommodate and manage participatory mechanisms in public institutions
5. Access to information with actions and possesses focusing on adaptation of organizations to meet the requirement of access to information laws, including resources and capacity building,
6. Non-discrimination of laws and policies with actions and possesses focusing on (a) adoption of antidiscrimination laws and regulations and related institutions, (b) building capacity and training in public institutions. These principles apply to all objectives of 2030 Agenda for Sustainable Development (United Nations, 2018).

Consequently, there is a need for the governments of the countries to be prepared to achieve these goals. Public Administration needs to be transformed in order to respond effectively to the new conditions and demands, adopting a new contemporary and timeless management philosophy such as the Deming Management Method for

quality. Deming Management Method, includes systematic thinking, optimal knowledge, and collective intelligence that focuses on the interaction between the system and its environment (Barouch & Ponsignon, 2016; Chen, Dahlgaard-Park, & Yu, 2014; Mosadeghrad, 2014). In addition, flexibility and adaptability to the constant changes of the internal and external environment are required, based on a valuable and ongoing dialogue with all stakeholders on quality and systematic thinking to create a quality culture in Public Administration (Dahlgaard-Park, Reyes, & Chen, 2018).

Success of Deming's Management Method Implementation

International bibliography shows that the Deming Management Method has led Small and Medium Enterprises and the industrial and manufacturing sectors to make great progress in innovating their products and processes (Abbott, et al., 2019; Akanbi, Oyedolapo, & Steven, 2019; Antony, Setijono, & Kumar, 2012; Box & Woodall, 2012; Kumar, Khurshid, & Waddell, 2014; Kureshi, Qureshi, & Sajid 2010). In addition, health sector has also adopted quality management practices to ensure the quality of services provided and to minimize costs by reducing fluctuations in outcomes and identifying opportunities to improve clinical outcomes and cost-effectiveness (van Schoten, de Blok, Spreeuwenberg, Groenewegen & Wagner, 2016). Over the years, the education sector has also found that the incorporation of quality practices, both in management and in the educational process, had excellent results based on the continuous improvement of educational unit processes. The Quality practices enhanced the educational environment, improved productivity and the quality of educational programs, increased the speed of educational services, reduced costs and improved quality (Bilen, 2010; Mehta & Degi, 2019; Tseng, Wu, Wu, & Chen, 2010.). Finally, Deming Management Method has been adopted by many governments worldwide and the implementation of quality practices has led to positive results in process improvement, participatory management and effective collaboration with suppliers and citizen satisfaction (Gomes, Small, & Yasin, 2019; Rodgers & Antony, 2019).

This study is useful in deploying the concept of Deming Management Method in Greek Public Administration. The study will be a useful tool to: (a) all government senior and junior public administrators and policy makers, (b) the administrative executives of Public Sector, and (c) University Professors in Management / Total Quality Man-

agement and graduate/undergraduate students in management and economics with an interest in Deming Management Method and Total Quality Management for research purposes. More specifically, the present study of W. Edwards Deming's theory of quality in Greek Public Administration and its possible impact on its leadership, structure, strategy, systems and people, as it is called to operate in the context of globalization and new geopolitical and economic conditions, provided information concerning (a) the extent to which the principles and practices of Deming's management method are implemented and add value to Public Administration, (b) the extent to which the public administrators have the intention to apply the Deming Management Method in the future and (c) the extent to which the public administrators are satisfied from the level of organizational performance as measured by satisfaction levels in relation to the key performance indicators of their organizations (goals, human resource, suppliers, improvements) and (e) to examine the relationship between the key factors of Deming Management Method (Deming on People, Deming on Leadership, Deming on Education and Training, Deming on Suppliers and Deming on Systems) and the key performance indicators (goals, human resource, suppliers, improvements) of their organizations.

As Deming Management Method has been successfully applied to a wide range of organizations and as global trends for Public Administration, as recorded by the United Nations, OECD and EUPAN, indicate practices that are aligned with Deming theory for Quality Management, it is concluded that it can be applied with similar results in Greek Public Administration as well. Also, since literature has not recorded a corresponding study in Public Administration, this research is about to fill that gap.

CHAPTER II

LITERATURE REVIEW

2.1. Public Administration

Public Administration exists in all countries of the world, irrespective of their government system. The term Public Administration is generally characterized by all legal tools and actions, aimed at achieving a concrete result for the satisfaction of the general interest of the citizens of a state. The Public Administration of a country is part of its state mechanism, and in particular of its executive authority, which is the second most distinct function of the state, between the legislative and the judiciary (von Westphalen, 2007), existing in any democratically favored state. In the broad sense, Public Administration includes two sub-concepts: that of each Government and of Administration. It is noted that in the strict sense of these political terms, Government differs from Administration. Government moves with absolute (legitimate) initiative and is the one that sets the guidelines, while Administration is limited to the implementation and monitoring of governmental will (Tsountas & Triantafyllopoulou, 2010).

Public Administration is based on a set of principles that govern and legitimize its action, which are called fundamental principles of administrative law and have constitutional basis (Apostolos, Pavlopoulos, Siouti, & Flogaitis, 2015). Their importance is decisive for the interpretation of the rules of administrative law and the unity of their implementation. In particular, the main ones are the following:

- The principle of legality of Public Administration
- The principle of supremacy and the protection of the public interest
- The principle of good administration and the legitimate expectation of the citizens
- The principle of proportionality
- The principle of impartiality of Public Administration authorities
- The principle of equality and meritocracy
- The principle of transparency and effectiveness of administrative action (Akrivopoulou & Anthopoulos, 2015).

International bibliography presents extensive reference to the concept of Public Administration and many definitions have been recorded in an effort of identifying it. But the concept of Public Administration is so vast and complex, that it cannot be expressed in only one definition. Public Administration can only exist within its political framework, which differentiates it from private or business administration and reflects the cultural norms, beliefs and power realities of its society. In Public Administration, those who control political power are the public policymakers for public interest and the administrative officers implement those public policies. Furthermore Public Administration includes services that collectively cannot be so well offered individual and ensures the execution of public law and regulation. In example, organizations like police or fire departments were created to be available to do what the citizens cannot do for themselves. Additionally individuals try to maximize their private gains and this is a fact that does not result in the maximization of social benefit. Also, as individuals act in their self-interest, destroy public resources. In this context Public Administration is crucial to the process of regulating individual behavior in the interest of common good. Concluding, we can say that Public Administration is the art and science of management, applied to the public sector and offers opportunities of idealism application in the offering of public service (Shafritz, Russell, & Borick, 2015).

2.2. Historical Review

Public Administration reforms

Since antiquity, kings and emperors in order to administer the practical functioning of the government, required resources secured through taxes. Prior to the 19th century, governments were characterized by nepotism, favoritism and political subjection. The civil servants have long been the "eyes and ears" of the rulers. During the medieval era, government staffing was consisting of the trained elite, officials needed for activities such as legal record-keeping, paying and feeding armies and levying taxes records. Due to the need of finding new markets and resources, the European imperialist era went ahead and the need for a complex Public Administration increased.

The concept of management, based on values and control (Kazin & Kazin, 2010), characterized by highly centralized bureaucracy, is encountered for the first time in ancient China (Ferlie, Lynn, & Pollitt, 2005) which, according to the literature, al-

ready since 12th century affects Europe and is characterized as the birth of modern bureaucracy (Creel, 1974).

Lorenz von Stein (1855), described Public Administration as a form of administrative law, relying on many predetermined concepts such as sociology, political science, administrative law and public finances. He is considered the founder of Public Administration science and he argued that Public Administration should incorporate the aforementioned scientific disciplines, in its operation and that civil servants should deal with both theory and practice.

In America, modern Public Administration has influences from the classical and liberal philosophers of the western world and is based on the principles of Aristotle, to John Locke and Thomas Jefferson for democratic governance (Jefferson, 1952; Locke, 2014). In particular, in the United States of America, academician Woodrow Wilson, President of the United States of America for 8 years, was recognized as “The Father of Public Administration” and he argued that bureaucracy should be run like a business and that the subject of the administrative study should be to determine what the government can do competently with success, at the lowest possible cost. He also advocated the separation of politics and administration, that has been the subject of lasting debate (Wilson, 1887). Within the same period in Europe, another great physiognomy, Max Webber, was associated with the Classical Public Administration bureaucratic theory. His theory approaches bureaucracy through a rational prism based on 9 fundamental principles which constitutes Weber's bureaucratic model (rational-legal model). Weber argued that modern bureaucracy when applying those principles in an organization can achieve enhanced efficiency, effectiveness and performance. Those principles are the following:

- Specific job description and duties.
- Recruitment based on merit and certified qualifications.
- Regulations and uniform principles in the administrative system.
- Careerism with systematic salary structure.
- Hierarchy, responsibility and accountability.
- Adopting a formal behavior governed by discipline rules.
- Domination of ethical laws.

- Impersonal authority.
- Political neutrality (Fesler, 1965).

The weakness of this system lies in the fact that it restricts employees to strictly defined tasks, degrades their creativity and initiative and makes them feel absent from the vision of their organization (Jeong Chun & Nor Fadzlina, 2012).

Frederick Taylor (1914), known as the "father" of Scientific Management & Efficiency Movement, believed that the application of scientific analysis would lead to the optimization of the processes of a business or an organization, resulting in cost and time saving (Jeong Chun & Nor Fadzlina, 2012). Taylor's theory of scientific management (known as Taylor's Principles or Taylorism), was based on four main principles proposing: (a) to replace empirical methods of management with scientific management methods, (b) to train and develop employees using a targeted and scientifically base, (c) to provide detailed instructions and on-the-job guidance to each employee, and (d) to divide managers and workers responsibilities, so that the managers with scientific management principles plan the work and the workers to perform it. Taylor's believed that managers are responsible to enforce the adoption of standardization of methods, the adoption of the best tools and working environment, and cooperation in order to ensure the work effectiveness (Jeong Chun & Nor Fadzlina, 2012; Taylor, 1914).

Although the separation of politics and administration is still a hot issue for Public Administration today, Luther Gulick and Lyndall Urwick, second generation scholars, have questioned this separation since the 1940s and have supported the implementation of an unobtrusive discretion and interaction. Until then, organizational theories, based on reasonable assumptions and generalizations on human nature, began to be abandoned. Gulick developed an inclusive, general theory of the organization, based on scientific methods, efficiency, professionalism, structural reform and executive control. Second-generation theorists have supported the application of this general management theory to both the private and public sector and, by extension, the administrative theory to governmental organizations (Fry, 1989).

During the 1950s, Public Administration in the United States met the satisfaction of its citizens due to the successful war effort and the successful post-war reconstruction of the country in Western Europe and Japan. In the 1960s-1970s, the government itself, because of the costly Vietnam War and domestic scandals, such as the Wa-

tergate scandal, was characterized by its citizens as ineffective. It was citizens' demand the replacement of bureaucracy with an effective administration through reforming and distancing Public Administration from politics. After the Second World War, Public Administration included the concepts of policy formulation and analysis by the government's decision-making bodies. At this time, as the human factor has become a key component of policy-making, sciences such as psychology, anthropology and sociology have been incorporated into the study of Public Administration (Jeong Chun & Nor Fadzlina, 2012). On the other hand, the governments of Central and Eastern Europe were characterized by a complexity, due to many more functions than the governments of the western world. Moreover, these governments, due to their partisan nature and centralization, presented a negative and dysfunctional position in the face of administrative reforms, and once their system was cleared, the need of a democratic Public Administration system and established administrative culture in Central and Eastern Europe has led to the choice between different Public Administration models for institutional development (Randma-Liiv & Drechsler, 2017).

In the late 1980s, David Osborne and Ted Gaebler, who formed the new generation of Public Administration theorists, formulated their theory of New Public Management (NPM). In their theory, they presented a new model for Public Administration that supports the use of private sector models, organizational ideas and values to improve efficiency and service-orientation of the public sector. The NPM has been characterized as an attempt for structural reform of Public Administration in the post-communist era in Europe (Randma-Liiv & Drechsler, 2017). Additionally, there was a clear focus on transparency, accessibility and decentralization by creating many accessible means of exchange between citizens and public sector (Pierre, 2003). The most important problem for reformation was the shortage of employees with the required qualifications, values, commitment and loyalty. In U.S.A., during Clinton's Administration (1993-2001), Vice President Al Gore adopted NPM in U.S. federal agencies which for the very first time began to treat citizens as customers (Andrew & Bill, 2006). Despite the fact that NPM had been criticized for considering people mostly as economic units, it is still applied to various governmental organizations in many OECD nations (Stone, 2008).

A successive to NPM reform that has been conducted in the late 1990s, was the Digital Era Governance, that suggests a series of changes that are made through IT and information management in many dimensions simultaneously. By this reform, the Weberian remnant of “closed files” was left behind, allowing citizens to manage their relation with the government through internet, achieving greater self-administration and freedom. Digital Era Governance introduced to Public Administration a new perspective to a more flexible customer-centered approach (Dunleavy, Margetts, Bastow, & Tinkler, 2006).

Through the second decade of the 21st century, in many northwestern European countries, began more or less to emerge new forms of governing that were shaping the New Public Governance reform (Torfing, Peters, Pierre, & Sorensen, 2012). Although we cannot find a precise theoretical or ideological background that supports the New Public Governance, in Public Administration of many OECD countries, were observed (a) participatory trends bringing together in a continued dialogue public administrative servants and citizens, (b) collaboration and interaction between public agencies and stakeholders and (c) new management tools and accountability systems that improve the internal motivation of administrative employees and the capacity for organizational culture and innovation (OECD, 2009; 2011a; 2011b). These administrative trends propose a systematic perspective and shape the theoretical framework of the New Public Governance as an elaborated model of the political and administrative system that accordingly promotes the empowered participation, multi-stakeholder cooperation, new administrative tools and multiple forms of accountability (Torfing & Triantafillou, 2013).

Observing the reforms happening in Public Administration management throughout the decades, we conclude that the main goal of Public Administration is to deliver more efficient and effective public services to the citizens and the organizations. As we are progressing towards 2020, Public Administration will continue to face financial crises, terrorist actions, natural and man-made disasters, natural resources stocks issues and social cohesion issues in global and national level (O’Leary & Van Slyke, 2010). Globalization and information technology have triggered rapid multilevel changes in strategy formulation and trends globally, to which Public Administration has to respond and adapt. Private sector management methods and practices, such as Quality Management, Strategic and Budgeting Planning, benchmarking, cooperation with

stakeholders, have been adopted from the public sector in an effort for continuous improvement towards “customer’s” satisfaction (Zulean, Andreescu, Gheorghiu, Roescu, & Curaj, 2017).

2.3. Quality Management

People are constantly seeking to meet their always changing needs and to improve the quality of their living standards. This is not always at their absolute discretion, because it is influenced by many exogenous impersonal forces, which take place in the large macro environments (socio-cultural, political-legal, economic, technological, and physical), which cannot be influenced by individuals. Such events like the two World Wars were milestones for the concept of quality, which is closely linked to the constant effort of people to meet their basic needs more and more effectively, but also to the organization’s need to satisfy the requirements of the triptych quality, cost and time and finally their customers (Estes & Sirgy, 2019). During the periods of mass production, the need of Quality Management emerged in order for the organizations to assure customers’ satisfaction, to maximize their economic success and facilitate international trade.

For this reason, quality is a concept that cannot be clearly and precisely defined. Quality lies in the perception of the recipients of the products or services. Due to the fact, that the needs of the recipients are constantly changing over time and are always influenced by fast changing external forces, the quality framework needs to be constantly redefined and the quality management ways of thinking, the methods and the tools should be constantly evolved and transformed (Harvey & Green, 1993; van Kemenade & Hardjono, 2019). Many researchers studying quality management concluded that over the years there have been periods, phases and models of different management approaches that have been formulated to meet the quality management requirements.

According to the literature, there are four important “periods” for quality management where its main characteristics were: a) during 1900-1930 the inspection in order to detect the product defects; b) from 1930s to 1950s the quality control of the final product quality; c) during 1950 -1970 quality assurance that came up to assure the intermediate and final quality of products and services; and d) 1970s to 1980s total quality

or strategic quality management that acted as a catalyst to the quality management of services and products globally (Garvin, 1984; Hermel, 1997).

Also Dahlgaard (1999) described three “phases” for quality management: a) the first phase from the mid-1940s to the early 1960s, when quality was expressed through quality of the products and the extent which they met the identified standards, (b) the second phase from the early 1960s to the early 1970s, when “meeting customers’ requirements” was the main focus of quality and (c) the third phase: from the early 1970s to the early 1990s, when the main object of quality was customers’ satisfaction, offering them excellent products and services (Dahlgaard, 1999).

Spencer (1994) and Chaffee (1985) have distinguished three models of strategy, the mechanistic, the organismic and the socio-cultural model. Guillen (1994) spoke about scientific management, human relations, and structural analysis, the three "management models" that contributed to the development of Total Quality Management (Guillen, 1994). Another classification of quality management is the distinction in (a) old or classical, focusing on identifying and reducing errors and improving systems and tools through administrative techniques such as Six Sigma or Lean thinking methodology (b) new quality management focusing on creating the conditions for ensuring effective change and crisis management (Williams, Wiele, van der, Iwaarden, van, Bertsch, & Dale, 2006).

The study of quality management literature leads to the conclusion that quality evolves according to the demands of the new era. This guides to the assumption of three time periods of quality management development. At the beginning of the 20th century, around 1920, the foundation for a systematic approach for quality management was established. In this time period of the second industrial revolution and mass production of goods, the main objective of quality management was the quality of the end product. Since the control of all products produced was very costly, sampling was adopted with the help of statistical process control for quality assurance. By using statistical methods it was possible to identify the defects and the process variation, discern the unstable status of the product characteristics and processes and decide type of actions needed to reduce these special causes as well as the common causes of variation. Leadership was directive and controlling with the risk of bureaucracy. Quality control systems were one

of the characteristics of this period, as American Society for Quality Control (ASQC) in 1946 and European Organization for Quality (EOQ) in 1956, were established (van Kemenade, van Hardjono, & Pupius, 2008).

The 1950s arise with innovative practices in quality management by Deming, with the discovery of the Plan Do Study Act (PDSA) cycle and the Kaizen approach by Imai. This period was characterized by an evolutionary perspective (Whittington, 2000), considering that treating an organization as many separate entities is inappropriate and sought the overall approach of all parts and processes in a circular way of working (PDSA). At this time the goal of the administration is to convince how the ideal reality of the organization should be. For this reason, leadership gains supportive and guiding features and provides guidelines and models such as the ISO9000 series and the European Foundation Quality Management (EFQM) Excellence Model. This period also introduces prizes such as the Malcolm Baldrige National Quality Award and European Quality Award, which set standards and rules to motivate organizations for continuous improvement (van Kemenade, van Hardjono, & Pupius, 2008).

In spite of the success of those quality models and awards, reality has shown that these models could not be effectively applied to all organizations. Thus a period of search and realization of the existence of different realities has followed. Emphasis was placed on people, their perceptions, their interactions and their exploratory perspective as professionals, in order to define in each case the mechanism for effective implementation of quality by each organization (Vinkenbun, 2006). Despite the ongoing transformation of quality management through the decades, many researchers mentioned that several quality issues remained unsolved and quality management has not had the expected success and results. It is supported that leadership does not involve everyone to the quality process, does not apply participative culture, does not implement evaluation process properly, and does not enable communication among departments and employees as well as emphasizing more on the lowest price at the expense of quality (Asif, de Bruijn, Douglas, & Fisscher, 2009; Miller & Cangemi, 1993; Mosadeghrad, 2014; van Kemenade, 2015).

On the other hand, great thinkers are studying how quality management will correspond to the current era of continuous change and the ever changing needs of the

uniqueness of today's organizations. Researchers have come to the conclusion that quality should be approached by a practically systemic manner, in order to effectively deal with the inability to cope with changes and crises of the internal and mostly the external environment. Actually quality management theory and practices involve systemic thinking that focuses on the interaction between the system and its environment (Barouch & Ponsignon, 2016; Chen, Dahlgaard-Park & Yu, 2014; Mosadeghrad, 2014). The environment nowadays creates a state of chaos in which every organization should, with the proper response of its people, adapt itself as a chameleon to survive. There is need for a concerted effort, to communicate effectively with all stakeholders, given that the needs of quality are constantly changing. It is about making decisions based on optimal knowledge and collective intelligence. Knowledge over the last years has been a major economic resource for the economic development as well as a social resource, as contributor to the global challenges of modern times (Stehr & Ruser, 2018). Possessing this knowledge and in conjunction with the soft skills, people become the most important asset of an organization and human and social relations constitute the most critical factor for the organizational excellence (Conti, 2006; Drucker, 2000).

Managing quality in the twenty-first century requires the memory of the past. Its course, from the rise of 20th century to the present, has recorded different ways of thinking and approaches, different tools and methods as well as it requires a strong perception of the environment and the choice or combination of appropriate information and practices (Barouch & Ponsignon, 2016; Markauskaite & Goodyear, 2016). Additionally, flexibility and adaptability to the constant changes of the internal and external environment is required, on the basis of a valuable, continuous dialogue with all stakeholders regarding quality and systemic thinking to create a quality culture in the organization. This could lead to the conviction that all the above mentioned characteristics should form the real new theoretical frame of Quality Management (Dahlgaard-Park, Reyes, & Chen, 2018). This frame fits totally to W.E. Deming's philosophy and his 14 principles for management and goes beyond TQM, as we know it to date. It is exactly what has happened in Japan with Deming's contribution to the emergent thinking of Japanese. Deming defined 14 points and 5 deadly diseases for management. Hardjono (2005) mentioned this creative thinking, with a relation to radical innovation, edgewise thinking and investing intellectual capacity. Deming's philosophy is also reflected in the

Deming Prize of Japan, where in comparison to other awards like the Malcolm Baldrige National Quality Award and EFQM Excellence Award, only limited norms have been formulated so that his management method could fit everywhere (van Kemenade & Hardjono, 2018).

Quality Management Implementation

Quality Management, in addition to the contribution of the great Quality Gurus, who have shaped its context since its emergence, presents methods, tools and techniques for its effective implementation (Mukherjee, 2019). Some of these Quality Management initiatives are Total Quality Management (TQM), Lean Management, Six Sigma, EFQM Excellence Model, Malcolm Baldrige National Quality Award (MBNQA), Deming Prize, Quality Control, statistical quality techniques, quality assurance and ISO 9001 (Lakhal, Pasin, & Limam, 2006).

Skepticism for Quality Management

Although, extensive studies have established that Quality Management practices and related tools have a positive influence on the quality applicants, there are indications that they are not effective in a holistic manner. It has been noticed, that quality tools can emphasize some areas without being able to guarantee the improvement of all levels of the organization (Kim, Kumar, & Kumar, 2012; Maria, Cláudia, & Maria, 2017). Despite the fact that bibliography has recorded limitations on the implementation of quality management systems, research in general has shown that quality management improves the efficiency and effectiveness of the organizations and suppliers, improving the quality of products and services, while maximizing their profit (Dimitrios, Evangelos, & Gotzamani, 2015; Liu, et al., 2017).

Quality Management on Business and Industry

Many researchers have stated that Quality Management practices led Small Medium Enterprises to make great progress in their product and process innovation (Akanbi et al., 2019; Antony et al., 2012; Box & Woodall, 2012; Kureshi, Qureshi, & Sajid, 2010; Sinha & Xiaofen, 2013) in UK, Australia (Abbott, et al., 2019; Kumar et al., 2014), in emerging economies of Asian and African regions (Chakraborty, Mutingi,

& Vashishth, 2019; Deng & Zhang, 2018) and other industrialized nations (Kumar et al., 2014; Roh, & Martin, 2018).

Also, the implementation of Quality Management Systems (QMS) in the industrial and manufacturing sector has proved to be a prerequisite for maintaining a solid quality level on operational, products and services level (Lin & Chai, 2012), that leads them to high business performance and their success entry and stay in the markets (Ismaylisa & Moschidis, 2018).

Quality Management on Health and Education

Following the successful impact of the implementation of quality management in the industrial sector, health sector has adopted quality management practices as well. The health sector worldwide has started to implement the quality management initiatives since 1999, to ensure the quality of the services provided by reducing the variation, to minimize costs, and identifying opportunities for improving the clinical outcomes and cost-effectiveness (van Schoten et al., 2016).

Over the years, the educational sector has discovered that the incorporation of quality practices in its administration, as well as in the educational process, has excellent results in the continuous improvement of the educational unit processes, the stimulation of the educational environment, the increase of productivity, the improvement of the curriculum, increasing the speed of training services, reducing costs and improving quality (Bilen, 2010; Mehta & Degi, 2019; Tseng et al., 2010).

Quality Management and Public Administration

Public sector for decades is facing the challenge to function in stagnant or declining economies, with ever-shrinking resources and ever-increasing demands from the citizens, the society and the private sector. Since 1980, efforts have been applied for reforming the public sector in order to be less costly and more effective, responding to the ever changing needs of citizens. Although this was not an easy task, the philosophy of quality was adopted by many governments worldwide and the application of quality practices such as TQM, Lean Management and Six Sigma led to positive results in improving processes, participatory management, effective cooperation with suppliers, reducing costs and satisfying citizens (Gomes et al., 2019; Rodgers & Antony, 2019).

Numerous businesses, leaders in their sector, have implemented quality practices and have been awarded for them. The most known manufacturing companies like Motorola, General Electric, Honeywell and global pharmaceutical companies such as Baxter, Eli Lilly, Johnson & Johnson and Novartis have adopted Six Sigma methodology. Also KLM, Nestlé, Bosch, Philips, Renault, Volkswagen AG, BMW have applied quality management initiatives and have been awarded by the European Foundation for Quality Management (EFQM). However, the National Institute of Standards and Technology (NIST), agency of the U.S. Department of Commerce has awarded the Malcolm Baldrige National Quality Award to Memorial Hospital and Health Care Center, Sutter Davis Hospital, Boeing Aerospace Support, Caterpillar Financial Services Corp., The Ritz-Carlton Hotel Company, Merrill Lynch Credit Corp, Xerox Business Products, Systems and Services, IBM Rochester, Federal Express, Commercial Nuclear Fuel Division of Westinghouse Electric Corp., Motorola, Charter School of San Diego, Montgomery County Public Schools, Richland College, University of Wisconsin–Stout and many other for their performance excellence (Klochkov, Alasas, Anand, & Papic, 2019).

2.4. Total Quality Management

Total Quality Management is a big part of the quality movement. As we have already mentioned, TQM as a management practice is a new way of organizing businesses and has begun to be applied since 1949 by the Union of Japanese Scientists with the contribution of W.E. Deming, with the direct goal to improve productivity. This endeavor was also attempted in the USA in the 1980s, about 30 years later, and soon it became applicable in Europe. This attempt was favored by the emergence of human potential movement in USA in the 1970s. The American movement of human potential considered that every human can cultivate an extraordinary potential and through maximizing self-esteem can achieve complete emotional health capable of facing any challenge experience and exceptional quality of life filled with happiness, creativity, and fulfillment. The human potential movement that emerged in America in the 1970s was a stroke of fortune for Deming, that facilitated him to frame the essentials of TQM, by combining the ideas of other quality management gurus such as Juran and Peter Drucker.

er, his philosophy and the knowledge got from the three decades of managerial consulting (Marcus, 2008).

Total Quality Management (TQM) has been considered as a holistic management philosophy that seeks the continuous improvement of products and processes and the overall organizational function, as well as exceeding customer's expectations through everybody's participation. Researchers have observed enhanced management efficiency, performance improvement and quality and excellence characteristics for the organizations implementing TQM principles (Chen, Anchecta, Lee, & Dahlgaard, 2016; Fu, Chou, Chen, & Wang, 2015). Additionally, TQM improves employees' satisfaction from their job, their performance and efficiency, employees' loyalty (Arunachalam & Palanichamy, 2017; Tang, Chen, & Wu, 2010), employees' involvement and reduces absenteeism from their work (Putri, Yusof, Hasan, & Darma, 2017; Sila, 2018). These improvements in the overall function of an organization, by implementing TQM, in turn, may increase financial performance. Better quality may have positive effect in market share, return on investment, and return on assets (Curkovic, Vickery, & Dröge, 2000), enhance productivity, reduce internal costs and thus increase profits (Gustafssoni & Michael, 2001).

By the late 1970s, as America realized a large trade deficit with a significant drop in market share vis-à-vis Japan, particularly in the automotive sector, started looking for the man who was the cause of the Japanese miracle. So in 1981 Ford and General Motors requested Deming's contribution. Also many other manufacturing and businesses followed the same paradigm. In the mid-1980s, Deming was requested to apply his principles for management in education and government. The presence of at least one working group in each of the 27 states and the Ministry of Defense marked the introduction of TQM in the federal government of USA (Gabor, 1990; Kamensky, 1996; Walton, 1986). By the early 1990s, following the global application of TQM in the industry, presidents Reagan, Bush, Clinton and Vice president Gore, Obama and Trump adopted its principles and embraced the idea that business governance principles can also be applied to the government (Berman, Bowman, West, & Van Wart, 2019). After the successful results of many USA companies that implemented TQM, in 1988, 14 leading West European companies realized that their only way of staying in business was to change their organizational culture regarding quality. They established the Euro-

pean Foundation for Quality Management. The European Quality Award, which was sponsored by the European Commission and the European Organization for Quality, is awarded to organizations which present a successful approach to total quality and continuous improving in their organization's performance (Krüger, 1999).

2.5. William Edwards Deming

William Edwards Deming is considered as a catalyst figure in the history of management (Chvala & Johnson, 2017). Actually, his academic interest was the emerging field of statistics and the application of statistic methods in order for the management to take the right decisions. Apart from his mother Pluma Irene Deming who contributed to the development of his character, his industrious nature and his quest for knowledge, he was influenced from significant personalities and great thinkers as Clarence Irving Lewis (founder of conceptual pragmatism), Kast & Rosenzweig (general systems theory), Walter A. Shewhart ("father of modern quality control"), Ronald A. Fisher (developed sampling techniques and randomization procedures), Jerzy Neyman (major achievements in mathematical statistics and behavioral statistics) and Clarence I. Lewis (philosophical ideas of thinking deeply and in many ways). Deming was able both to recognize the value of great thinkers, to appreciate its significance and to integrate their ideas (Blankenship & Peterse, 1999). Thus, making use of the knowledge gained by the important scientists he met, Deming developed a contemporary management philosophy which was the cornerstone of the quality movement.

He manifested an idiosyncratic style of management that approaches the organization in a holistic manner, for the continuous improvement of all organization processes, through the participation of all employees and stakeholders and the use of statistical tools for decision making, resulting high quality products and services, to meet and exceed customer satisfaction (Kriemadis, Thomopoulou, & Sioutou, 2017). Deming introduced the initially known Deming Philosophy, which afterwards became known as Total Quality Management, by incorporating SQC into the social science of human interactions and especially in the personality that had imprinted in the Human Potential Movement of the 1970s (Marcus, 2008). Actually he contributed uniquely to the modernization of Quality Management (Mukherjee, 2019).

2.6. Deming in Japan

By the end of World War II, the Japanese industrial leaders decided the Japan's industrial revitalization. This could only happen by abandoning the prewar poor quality goods production and producing consumer goods that were competitive to those of international markets. The Japanese, searching among the America's managerial theorists, invited Deming to manage the Japanese postwar census. Deming was considered from the Japanese as a technical genius in the areas of mathematics, statistics, and statistical variation and adopting the Statistical Quality Control (SQC) to the Japanese manufacturing, became the one responsible for "The Japanese miracle" (Marcus, 2008).

He first arrived in Japan in 1947 and during his stay he met and socialized with scientists of Japan's most important quality control organization, JUSE (Union of Japanese Scientists and Engineers) (Marcus, 2008). Deming, with his presence there, realized that Japanese managers and technical staff were entrusted with the responsibility for quality control by 85%, while only 15% the remaining staff and he insisted that this exactly was the problem. He argued that this percentage should change and maintained that quality control should be incorporated in every work process and employees' relations and all hierarchical levels personnel should be aware of statistical control technics. Deming also introduced to the industry leaders the systematic approach for any issue of their organization, by applying the Plan, Do, Study, Act procedure (PDSA) or Deming cycle (Leitner, 1999).



Figure 2.1. Deming's PDSA Cycle

The PDSA cycle is a flow diagram for monitoring and improving a process. At the first step "Plan" is being generated an idea for improvement of a process. This 1st stage is the keystone of the whole cycle and leads to a plan for a test, comparison, experiment. This stage should be wisely organized, as a superficial start may be ineffective, costly and frustrating. At this stage there may be a choice between a variety of suggestions, where their possible outcomes should be compared in terms of probability of new knowledge or profit. At the second stage "Do" a test or comparison in a small scale should be carried out, according to the plan decided in the previous step. The Third stage "Study" is the step where the results of the previous stage will be studied. The evaluation of the results will indicate whether they correspond with hopes and expectations. At the final stage "Act" a decision will be made about adopting the change, or abandoning it, or run through the cycle again. In the case of starting the cycle again, the design will have to be done under different environmental conditions, different materials, people and rules. The PDSA cycle applied in stage of any procedure will be helpful for finding special causes of defects and will lead to the improvement of any stage and better satisfaction of the customer for that stage (Deming, 1986, 1994).

The recognition by the Japanese, that Deming contributed in the reconstruction of their post-war economy, by the development and advancement of SQC as a good corporate practice, led to the establishment of the Deming Prize. Based on Deming's contribution, the Japanese scientists and engineers established in 1951 the Deming Prize, in order to award the company that was adept in implementing the statistical tools of SQC the previous year (Fisher, 2019). Japanese enterprises adopted quality control (QC) ideas and implementing long-term education and training policies for employees, transformed it into a total quality control (TQC) movement that led to the high growth period of 1955–1980. Many Japanese firms like Hitachi, Nissan Motors, Toyota Motors and others, that were in the Deming Prize winner's list, demonstrated increased customer satisfaction, costs decreases, as well as greater profitability and market share (Jaquinto, 1999). This quality movement that emerged in Japan, with Deming's contribution of SQC and continuous requirement for the organizations of adapting and changing, was developed and expanded through the years and became later widely known as Total Quality Management (Miller, Duesing, Lowery, & Sumner, 2018).

2.7. Deming's 14 Points for Management

Although Deming (1986) is associated with total quality management (TQM), he did not specifically use that term to describe his quality management philosophy. After his return from Japan, Deming combined his ideas with elements of Japanese culture and the over three decades of managerial consulting, in Deming's Management Method in order to help America to abandon the old style of management and get out of the crisis. This knowledge distillate was recorded in Deming's 14 Points for Management that follows:

1. *Constancy of Purpose for the Improvement of Product and Service*

It was Deming's strong conviction, that due to the fact that customers, technology, and economic environments are constantly changing, the organizations that have the intention to follow these changes must continually be in an improvement process. For organizations to survive and prosper, leaders responsibility and commitment for continuous quality improvement is a prerequisite. Customers, suppliers and employees need management's statement of constancy of purpose. Accordingly, organizations can establish constancy of purpose and dedication to be competitive and provide jobs for their employees through innovation, allocating resources on research and education and through constant improvement of the design of their product and services (Deming, 1986).

For Deming, accountability for quality belongs to top management. Top management should empower employees and encourage their active participation in the organization, which will lead in a basic level of trust between management and employees, in order to share ideas for continuous improvement and transformation (Deming, 1986). Additionally it is needed management's foresight to translate future customers' needs and expectations into measurable data, so that a product or service can be designed and turned out to give satisfaction at a price that the user will pay, a fact that is not easy because of the ever changing customers' needs (Shewhart & Walter, 1980).

2. *Adopt the New Philosophy*

Deming argued that quality itself is not a management method but a philosophy; quality is a way of life and has to do with one's value system. In the working environ-

ment quality should be initiated and sustained by top managements - through the contribution of a “critical mass” - and generate a high level of passion and pride among employees, as they are the individuals who are going to lead to the transformation through their own transformation (Miller, 1991). He expressed the view that transformation must begin with the individual and this requires understanding and implementing the profound knowledge system.

This process of individual transformation is the cornerstone for creating a new culture within the organization. The individuals, once transformed, adopt a holistic thinking and see themselves as components in a system who works in cooperation and interaction with the other components and stages, toward achievement of the organization's aim (McNary, 2008). The system of profound knowledge provides an outside perspective of the organization and everything it includes (Deming, 1994). It presents a map of theory, that helps the individuals to understand the organization that they work in; develops the desire of changing and improvement, learning and training, finding a valued purpose, using statistical methods for improvement, helping people rather than judging them, an understanding of the value and necessity for “co-operation” and joy in work (Yoshida, 1992)

3. *Cease Dependence on Mass Inspection*

Inspection gives us the confirmation that a product or service is defective or not. Today, although numerous organizations carry out routine control of their end products and services, or as they come off the major process stages, the desired quality result is not achieved. So the defective outflows are either thrown out or reworked (Phelps, 1998). Both situations are costly, unreliable and lead organization to great loss, because the loss from the word of mouth of a dissatisfied customer for a defected product or service is unpredictably great. Deming (1986) claims that quality comes not from inspection, but from improvement of the production process, by the application of modern quality tools such as statistical process control and quality function deployment. It is management's responsibility, to remove the causes of bad quality and with the help of statistical methods, to proceed in corrective actions. Additionally, cooperation with suppliers is of paramount importance of the quality assurance of incoming materials and external factors that alter the processes data (Ranney & Troop-Gordon, 2015).

4. *End the practice of awarding business on the basis of price tag alone*

For Quality Management, effective partnering among organizations and suppliers create a condition for a win-win state for both parts. As quality is defined by customers, the maximum benefits of partnering are accomplished when all partners cooperate. In the traditional supplier-customer chain, suppliers, organizations and customers operate independently. Nowadays, in an intensely competitive marketplace, where organizations drift to the lowest bidder, the inevitable results are low quality and high cost. In this case organizations, after receiving supplier's service or raw material, cannot realize what end users receive; if they like or dislike the product or the service. Additionally due to the non-existent cooperation among the two parts, suppliers cannot help organizations to better meet their customer's needs. Instead, Deming at his fourth point supports that cooperation between suppliers, organizations and customers contribute to quality products and services, because organizations take into account customer's opinion and in cooperation with suppliers design products and processes that meet their needs (Deming, 1986).

The target behind the partnering with suppliers is to create and maintain a loyal, trusting, reliable relationship that will allow both partners to win, while promoting the continuous improvement of quality, productivity and competitiveness (Kriemadis et al., 2017). Long term relations with suppliers and one single supplier for each service or raw material are necessary for best economy. Suppliers can better be innovative and develop economy in their production processes, in an environment of long term cooperation with the organizations. Additionally, regarding the purchase of products and services, organizations should aim to minimize the net cost per hour of their life and not necessarily trying to reduce the price of anything purchased from the suppliers with no regard to quality and service. Organizations should also evaluate additional to the purchase price, costs resulting from delays, administration, rework, adjustment to accommodate incoming variation and damage to their reputations with customers due to unsatisfactory performance of their product or service. As the purchase price plus the additional costs compose the Total Cost of the product or service to the purchaser, the reduction of Total Cost, versus the purchased price, is crucial for the organization to be profitable and competitive in the long run.

It is not attainable for all suppliers to participate in such relationships. Organizations should develop a strategy for cooperation with suppliers, in order to ensure that suppliers are meeting the organization's needs for timeliness, quality and quantity (Cohen & Brand, 1993). Thus suppliers should be selected through a formal vendor selection process that meets the specified requirements, as the adequately defined technical, quality and commercial details, to ensure an efficient communication with the suppliers and find ways for both to win (Deming, 1986).

5. *Improve the System of Production and Service*

Deming argued that the main cause of low productivity and low quality derives from the system (Deming, 1994). Thus he suggested treating each individual action as a process that can be improved through the Deming Cycle of continuous improvement. According to Deming (1986), to improve quality and productivity while also decreasing costs, an organization needs to constantly improve its system of production and service. Later, many researchers come to confirm and support his view. They argue that quality should be incorporated into all activities and services. Additionally they consider that there should be a close communication with the receivers of the services or products in order, anytime, the organization to be aware of customers' needs and satisfaction. They agree that it is management's responsibility to continuously find ways to enhance quality and to involve everyone in the organization to the transformational process. This can be accomplished through personnel empowerment and the encouragement of their cooperation. Moreover they insist that statistical quality tools and quality cycles are the quality tools needed to improve constantly and forever the system of production and service (Evans & Lindsay, 2013; Farooqui & Ahmed, 2009; Heinle, 2001; Kruger, 2001; Metri, 2006).

6. *Institute a Vigorous Program of Education and Retraining*

As Deming considered human resources as the most important asset of an organization, he argued that education and training is a long-term investment in people and the future of the organization. Continuous education and training, including training in statistical techniques, lead staff to improve its skills, competences and quality performance towards the ever-changing customer needs (Kruger, 2001). Everyone, in the organization, like leaders, managers and employees must continuously acquire knowledge

and be retrained in new methods of quality management. They also need to evolve their capabilities in developing team dynamics, in building consensus and in collaborative decision-making in order for the system to improve itself (Lunenburg, 2010).

7. *Adobe and Institute Leadership*

Deming argued that the job of management is not supervision but leadership. In order for the organizations to survive in the global arena, leaders need to obtain various skills and qualities to succeed in the modern business environment. They should learn and apply the system of profound knowledge. Deming's Theory of Profound Knowledge refers to the ability of an "outside view", through possessing four distinct and important core values, all related to each other:

1. Appreciation for a system,
2. Knowledge of the theory of variation,
3. Theory of knowledge and
4. Knowledge of psychology (Mauro, 1999).

Appreciation for a system

For Deming a system is a matrix of interdependent components that cooperate trying to accomplish the aim of the system. Managers, in order to direct the best efforts of all components toward achievement of this aim, have to have the knowledge of the interrelationships between all the components within the system and of the people that work in it (Hillmer & Karney, 1997). This implies that managers need to have the ability of prediction through statistical evaluation of data, continuous evaluation of the micro and macro environment (technical, social, economic) to see the need for innovation, new product or new service and lifelong learning for everyone in the organization. Also managers should have the ability to recognize and manage the interdependence between system components, solve the conflicts and remove the barriers to cooperation (Mauro & Mauro, 2005).

Knowledge of the theory of variation

Management is Prediction. Prediction may exist when a system is in a state of statistical control. A process that is in a statistical control provides a rational basis of prediction for the results of the future (Burr, 1967; Wilcox, 2004). If the process is not in a statistical control, then it is not predictable and there occur two kinds of variation:

(a) variation from common causes, and (b) variation from special causes. With the help of control charts and prescribed rules for calculation of control limits, we conclude that common causes of variation stay the same over a long period and special causes point out the need for action. Effective managers should have knowledge that will separate the two kinds of causes, so to remove the special causes detected and shrink variation in order to constantly improve processes (Deming, 1982). Removal of a special cause of variation in order to move towards statistical control, it does not mean improvement of the process. It only brings the system back to where it should have been initially (Juran, 2003).

Theory of knowledge

“The greatest obstacle to discovery is not ignorance – it is the illusion of knowledge” (Boorstin), and leader's job is to know, because only best efforts are not enough (Deming, 1990). It is important to a theory of knowledge to understand how people think, and act, based on what they believe they know to be true. But the real truth should not be just a perception; it should be based on evidences. Deming used the model Plan-Do-Study-Act (PDSA) cycle, within his Management System in order to gain evidence and insight. The PDSA cycle is a process to improve based on an understanding of the theory of knowledge. People learn better when they predict. Making a prediction, forces us to think ahead about the outcomes. Making a prediction also leads us to examine more deeply the system, question or theory, we have in mind. Without theory one has no question to ask. Therefore without theory, there is no learning. Additionally, information no matter how complete and speedy is, it is not knowledge (Lewis, 1929, 1956). Today we have instant communication with any part of the world. But speed does not help anyone to understand the future and the obligation of management. It is not the constant updating of information that helps leaders to cope with the rapidly changing future (Kriemadis et al., 2017).

Knowledge of psychology

Knowledge of psychology helps leaders to understand people and the interaction between them and the internal and external environment under different circumstances. Human beings are unique entities and different from one another. Leader should be able to recognize immediately these human particularities and use them for optimization of their abilities and inclinations (Arnold & Silvester, 2005). Besides Deming argued that

the aim of Leadership should be to improve the performance of man and machine, remove the causes of failure and help people to do a better job with less effort. Leaders should help people to develop and preserve their positive innate attributes (Deming, 1996).

8. *Drive out Fear*

According to (Ryan & Oestreich, 1991), employees experience three main fears:

- fear that nothing will change,
- fear to face conflicts and
- fear that they will cause trouble for others

They also believe that these fears will have the following possible repercussions:

- Loss of credibility or reputation,
- Lack of career or financial advancement,
- Possible damage to relationship with boss,
- Loss of employment,
- Interpersonal rejection,
- Change in job role,
- Embarrassment and/or loss of self-esteem, and
- Job transfer or demotion.

Fear is an inhibiting factor in the evolution of an organization (Lunenburg, 2010) and leads employees to poor morale, poor effectiveness and productivity, reluctance to take risks, ineffective communication, stifling of creativity, reluctance to work for the best interests of the organization and work together (Gitlow & Gitlow, 1987; Redmond, Curtis, Noone, & Keenan, 2008;). Deming claimed that an effective leader would identify the cause of underlying fears and then specifically confront their sources. Moreover they would provide continuous feedback to drive out fear and they would assist employees to develop methods to learn from mistakes and make improvements (Evans, Thornton, & Usinger, 2012). It is the management's responsibility to enable people to do their best by constantly improving the system in which they work (Lunenburg, 2010) and to create and establish a culture of quality in the organization which encourage employees to express their ideas, questions, suggestions for quality improvement, or requests for further instructions (Kruger, 2001).

9. *Break down Barriers Between Departments*

For Deming every organization should be considered as a system and be organized for the best overall performance. This can be accomplished when every part of the system cooperates for the benefit of the whole system. Teamwork requires one to compensate with his strengths for someone else's weaknesses. The prerequisite for that is breaking down organizational and professional barriers between departments and for the team members to have knowledge of each other's roles; good communication and negotiation skills; a willingness to work together; a feeling of trust related to their own self-competence; and confidence in each other's abilities and mutual respect. Naturally, this implies knowing other team members and their potential contributions fairly well. Management should encourage employee involvement in multi-departmental activities and information sharing developing co-operation, assertiveness, responsibility/accountability, autonomy, communication, co-ordination, mutual trust, and respect (Kriemadis et al., 2017).

10. *Eliminate Slogans, Exhortations, and Targets for the Work Force*

Deming argued that the bulk of the causes of low productivity and low quality belong to the system, and thus lie beyond the power of the workforce. For these reason slogans, exhortations, and targets for the workforce asking for zero defects and new levels for productivity have no mean. Such exhortations only create adversarial relationships, hamper the workers' productivity, and lower the quality of their work. Deming (1986) maintained that management must understand that quality and increased productivity are the management's responsibility. A number of researchers agree with Deming and conclude that slogans and numerical goals like zero defects, do not help employees do a better job but testify management's minor way out. They argue that a better approach is to provide the means and the way to the desired goals. If the final goal is to improve its processes' quality, efficiency and effectiveness will increase (Metri, 2006).

11. *Eliminate Numerical Quotas*

One management practice that restricts employees' ability to tap inherent motivation is management by quantitative goals and quotas (Lunenburg, 2010). This happens because, as employees focus to reach the numerical targets, they ignore quality (Sashkin

& Kizer, 1993) as they are being pressured by management to meet or exceed the numerical targets at any cost. Focusing on numerical quotas alone, will not help workers do a better job. Research has shown that as far as employees achieve the settled numerical goals, they feel that they have completed their work and do nothing further. They do not care about the procedures and quality, especially if the numerical quotas and targets are linked reward incentives. Accordingly Numerical quotas can even generate a negative, as they may cause frustration (Metri, 2006). Also organizations due to poor quality, limit their ability to meet their customers' needs at a price they are willing to pay (Scherkenbach, 1992). Therefore, the quota system often fails to contribute to the enhancement of organization's effectiveness, competitiveness and to continuous improvement because setting numerical goals, leads to minimal performance and enhances fear in the workforce (Metri, 2006).

12. Remove Barriers That Rob People of Their Right to Pride of Workmanship

Deming argued that employees want to do their best in their job, but barriers and handicaps prevent them from being proud of their work and doing their job properly. There are barriers for employees and for management. Such barriers are the annual rating of performance, or merit rating, lack of involvement, poor information and guidance from management and defects that lie with the system (Lunenburg, 2010).

Employees want to feel important in the work they do. But many times they can be evaluated and graded in a manner that will frustrate them about barriers that lie on systemic or maladaptive errors. This situation encourages constant competition that is unfair and harmful for both organizations and employees, because short-term performance will be cultivated, long-term planning will be eliminated, fear will be developed, teamwork will be demolished and competition and micro politics will be nourished (Metri, 2006). It is the responsibility of management to institute leadership, take actions to constantly improve the system and remove barriers that struggle the worker. Moreover superiors should not only base their decisions on performance appraisal and management by objectives, but focusing more on the recipients of their service or products, on procedures and achieving respect among the employees and the community (Kruger, 2001).

13. Institute a Vigorous Program of Education and Retraining

Deming advocated the establishment of a vigorous program of education and self-improvement for every employee in the organization, in order for the system to improve itself. Leaders, managers and staff must continuously acquire knowledge and be retrained in new methods of quality management, including group dynamics, consensus building, and collaborative styles of decision making (Lunenborg, 2010).

Education and self-improvement for everyone in the organization should be encouraged (Heinle, 2001). What an organization needs is not just good people; it needs people who are improving via education and training; People who are growing in the fulcrum of education and life experiences (Metri, 2006). Deming points out that staff should be trained continually as customers' needs are continuously changing over time (Kruger, 2001). It is not enough to hire good people; they constantly have to acquire new skills and new methods. Deming also considers training to be a long-term investment in people and the future of the company. Education and training, especially in statistical techniques, help human resources improve its quality performance and the quality of the processes they use (Kriemadis et al., 2017; Kruger, 2001).

14. Take Action to Accomplish the Transformation

Deming incorporated his philosophy in 14 points for management, providing a road map for transformation and improvement of all organizations aspects. The 14 points are stated as mandatory statements and principles of intra-organizational and inter-organizational behavior, in order to cure the “seven deadly diseases” (lack of constancy of purpose, emphasis on short term profits, evaluation on performance/merit rating/or annual review, mobility of management/job hopping, management by use only of visible figures, excessive medical costs and excessive suppliers contingency costs) and obstacles and help organizations to deliver high quality products and services (Anderson et al., 1994).

The actions that management should take to accomplish the transformation are the following:

- Managers must constantly keep in mind the 13 points, the 7 deadly diseases and to adopt the new philosophy.

- Managers should also take pride in adopting the new philosophy and be determined to break the tradition, even removing, at the first stage, those who set obstacles.
- Managers must communicate, in all appropriate ways, to a critical mass within their organizations, the necessity for these changes and the need for all staff to be involved. Middle managers need to ensure that every employee within the organization understands the 14 points, the deadly diseases and obstacles.
- It should be clear to everyone that each job is part of any process and that each process is divided into stages. The flow diagram represents a theory. The output of each stage is the input for the next stage and the final stage directs the service or the product to the end customer. The purpose of each stage is to satisfy the customer of the next stage and all stages work together for quality and customer satisfaction.
- The use of PDCA cycle for the improvement of any stage of the procedures and statistical methods to detect the special causes of variation is crucial for quality services and product that meet and exceed customers' expectations.
- Managers should inspire people to be "team players" and to actively participate in decision making.
- Managers should, for the organization's existence, use the knowledge stocks that exist in the organization and learn how to use external help when it can be effective (Hughes, 2017).

CHAPTER III

RESEARCH METHODS AND PROCEDURE

This chapter discusses the methodology and procedures adopted for the particular research. More specifically it describes the population of the study, the research design and method. Also it describes the outline of the statistical techniques used to address issues of validity and reliability of the instruments used for the data collection and analysis.

3.1. Population of the Study

As Deming's 14 points for Management concern management's action to accomplish the transformation, the population of this particular research was consisted of the administrative executives of Greek Public Administration who implement, according to the Constitution of Greece (Greek Parliament, 2008), primary sovereign and self-organization authority (Ministries, Regional Administration) (Tsountas & Triantafyllopoulou, 2010). Through this view, the population of the study was consisted of 2721 Head of Departments and Directorates of Greek Public Administration in the season 2017-2018, selected from the organization charts of the Greek Ministries and Regional Administrations through the web page www.yypes.gr. The sample size we used was 334 Head of Departments and Directorates of the Greek Ministries and the Regional Administration. In accordance with previous research methods (Huck, 2004), a sample size of 334 is adequate for our findings to be generalizable and representative of all Head of Departments and Directorates of Greek Public Administration.

3.2. Instrument Development

The questionnaire was developed by Kriemadis and Sioutou (2019) and is based on literature review on the philosophy of W. Edwards Deming regarding the 14 Points for Management as well as on input and suggestions from reviews offered by a selected panel of experts. To examine the construct validity of the questionnaire, a varimax rotated principal components exploratory factor analysis was conducted, as this is the first study using the specific questionnaire. The questionnaire provided specific information concerning the management practices on Greek Public Administration according to Deming's management method and demographic characteristics of the respondents.

More specifically, the instrument construct is consisted of the following III key modules (appendix A):

I. Deming's Management Method

Questionnaire module I involves 14 Questionnaire dimensions, that include 55 closed questions related to Deming's 14 Points for Management. Every question needed to be answered in three levels, which consist the following three sub scales:

1. To what extend is it applied in the organization at present
2. To what extend adds value in the organization and
3. To what extend is going to be applied in the organization in the future

Questionnaire dimension one: The first dimension includes 4 items (1, 2, 3, 4), which referred to the management practices for long term plan based on quality towards continuous improvement. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 4 items of constancy of purpose for continuous improvement of Greek Public Administration. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to "Never", 2 = "To little extent", 3 = "To some extent", 4 = "To great extent" and finally 5 = "Always".

Questionnaire dimension two: The second dimension includes 5 items (5, 6, 7, 8, 9), which referred to the management practices regarding the development and adoption of the quality philosophy at Greek Public Administration. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 5 items of the adoption of new philosophy. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to "Never", 2 = "To little extent", 3 = "To some extent", 4 = "To great extent" and finally 5 = "Always".

Questionnaire dimension three: The third dimension includes 5 items (10, 11, 12, 13, 14), which referred to the management practices that incorporate quality in every stage of the process design and delivery of the services and use quality statistical control to ensure that the processes are affective. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 5 items of ceasing dependence on mass inspection to achieve quality. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to "Never", 2 = "To little extent", 3 = "To some extent", 4 = "To great extent" and finally 5 = "Always".

Questionnaire dimension four: The fourth dimension includes 6 items (15, 16, 17, 18, 19, 20), which referred to the management practices regarding the cooperation of Greek Public Administration with suppliers. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 6 items that study if the cooperation with suppliers is based on terms of trust, loyalty and partnership and not on price tag alone. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension five: The fifth dimension includes 3 items (21, 22, 23), which referred to the management practices of constantly improve the processes for planning, production and services in order to improve quality and decrease costs for Greek Public Administration. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 3 items of continuous improvement taking into consideration citizens’ needs. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension six: The sixth dimension includes 3 items (24, 25, 26), which referred to the management practices that encourage training that will result variation reduction. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 3 items of instituting on the job training. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension seven: The seventh dimension includes 4 items (27, 28, 29, 30), which referred to the management practices that prove the adoption and institution of leadership. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 4 items of adopting transformational leadership. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension eight: The eighth dimension includes 5 items (31, 32, 33, 34, 35), which referred to the management practices that remove fear from the or-

ganization. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 5 items that ensure that leadership does not inspire fear for the employees. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension nine: The ninth dimension includes 3 items (36, 37, 38), which referred to the management practices that break out barriers between the departments. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 3 items that ensure a cross functional collaboration and consensus between the departments of an organization. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension ten: The tenth dimension includes 4 items (39, 40, 41, 42), which referred to the management practices that eliminate slogans, exhortations and targets for the human resources asking for zero defects and new levels of productivity. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 4 items of effective leadership that supports employees to do their job right. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension eleven: The eleventh dimension includes 3 items (43, 44, 45), which referred to the management practices that emphasize not only on the numerical objectives but on the quality of the procedures. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 3 items of effective leadership that eliminate numerical quotas for the human resources and numerical goals for management. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension twelve: The twelfth dimension includes 4 items (46, 47, 48, 49), which referred to the management practices that remove barriers that rob people of pride of workmanship. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 4 items of the leadership culture that

ensures a quality working environment for the human resources. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension thirteen: The thirteenth dimension includes 3 items (50, 51, 52), which referred to the continuous education and self-improvement. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 3 items of management practices that support the development of human resources. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

Questionnaire dimension fourteen: The fourteenth dimension includes 3 items (53, 54, 55), which referred to the management practices that through an effective action plan for leadership, people and systems will upgrade the quality of the whole organization. Head of Departments and Directorates were asked to evaluate the degree of the given importance in the 3 items that presents the actions that will accomplish the transformation of the organization. A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

II. Key Performance Indicators

Questionnaire dimension fifteen is consisted from 4 items (56, 57, 58, 59), which referred to management satisfaction (a) from achieving the objectives of their department/directorate; (b) from the performance of the human recourses of their department/directorate; (c) from the cooperation with the suppliers and (d) from the improvements that they applied to their department/directorate. The particular research used the subjective way of measuring performance. This means that head of departments and directorates were asked to evaluate the organizational performance of their organization as measured by their satisfaction levels in relation to the key performance indicators of their organizations (goals, human resource, suppliers, improvements). A five-point Likert scale was used to evaluate these items, where the 1 corresponds to “Never”, 2 = “To little extent”, 3 = “To some extent”, 4 = “To great extent” and finally 5 = “Always”.

III. Demographic Characteristics

Questionnaire module II is consisted from 9 closed questions related to the demographic characteristics of the respondents. The questions referred to:

1. Gender (question 60)
2. Age (question 61)
3. Educational background (questions 62-64)
4. Organization's name (question 65)
5. Job title (question 66)
6. Work experience (questions 67-68)

Instrument Validity

The content validity of the questionnaire was determined by a panel of six experts, including academics and professionals in the fields of strategic management, organizational excellence, quality management, Public Administration and research.

The construct validity of the questionnaire was proved by applying a varimax rotated principal components exploratory factor analysis.

Instrument Reliability

Cronbach's coefficient alpha (α) was used to assess the internal consistency reliability of survey instrument. The coefficient alpha (α) of the scale was found .96. More specifically the coefficient alpha (α) of the sub scales that apply to:

1. Present (to what extend are the items of the scale applied to the organizations of Greek Public Administration) was found .95
2. Value (to what extend does this approach add value to the organizations of Greek Public Administration) was found .97 and
3. Future (to what extend do the junior and senior level public administrators have the intention to apply the items of the scale in their organizations in the future) was found .97.

Additionally the coefficient alpha (α) for the factor "Deming on People" was found .98, for the factor "Deming on Leadership" .98, for the factor "Deming on Education & Training" .96, for the factor "Deming on Suppliers" .95 and for the factor "Deming on Systems" .92.

Data Collection

The Data collection was carried out by two methods:

A. By sending the questionnaires via e-mails, which allowed them to be completed and sent directly via the automated process. The automated process ensured the anonymity of the respondent, as well as excluding the possibility of automatic completion. In this method there was no chance of contacting a researcher and a respondent. The questionnaire was accompanied by an introductory explanatory letter, which included the aims and objectives of the survey as well as all the necessary information material for the correct completion of the questionnaire.

B. Completion of questionnaires given to the participants, after visiting specific organization departments of the Greek Public Administration. In this method there was the chance of contacting the respondent. The questionnaire was accompanied by an introductory explanatory letter, which included the aims and objectives of the survey as well as all the necessary information material for the correct completion of the questionnaire.

3.3. Statistical Analysis

Normally distributed variables have been expressed as mean \pm one standard deviation; whereas variables with skewed distribution have been expressed with their median and interquartile range. Media is not interquartile range. Qualitative variables were expressed as absolute and relative frequencies. Mann-Whitney test was used for the comparison of continuous variables between two groups and Kruskal-Wallis test for the comparison of the distributions of continuous variables among more than two groups. Wilcoxon test was used to compare related samples of data, generated by measuring the same people for present, future and value). Spearman correlations coefficients were used to explore the association of two continuous variables. Correlation coefficient between 0.1 and 0.3 were considered low, between 0.31 and 0.5 moderate and those over 0.5 were considered high, according to Cohen's classification. Exploratory factor analysis was used in order to examine the structure of Deming questionnaire. Specifically, Principal Component Analysis was applied, with Varimax rotation. Multiple linear regression analysis was used with Depended Variables the factors of the aforementioned Factor Analysis. Log transformations were used in Multiple linear regression. Internal consistency reliability was determined by the calculation of Cronbach's (α) coefficient.

Scales with reliabilities equal to or greater than 0.70 were considered acceptable. All reported p values are two-tailed. Statistical significance was set at $p < 0.05$ and analyses were conducted using SPSS statistical software (version 22.0).

CHAPTER IV

RESEARCH FINDINGS AND ANALYSIS OF THE DATA

4.1. Descriptive statistics

Responses were received from 334 administrative executives of Greek Public Administration. Their demographics and work-related information are presented in the table 4.1.

Table 4.1. Demographics and work-related information

		<i>N</i>	<i>%</i>
Gender	Men	145	43,4
	Women	189	56,6
Age (years)	24-42	49	14,7
	43-54	212	63,5
	55-73	73	21,9
Graduated from National Centre for Public Administration and Local Government	Yes	35	10,5
	No	299	89,5
Educational level	High school graduate	8	2,4
	After High school graduate	5	1,5
	Technical University	34	10,2
	University	77	23,1
	Master	182	54,5
	PhD	26	7,8
	Other	2	0,6
Field of education	Business Administration/ Finance	138	41,3
	Other	196	58,7
Position	Head of management	57	17,1
	Head of department	256	76,6
	Other	21	6,3
Working years as head of management or head of department, mean (<i>SD</i>) median (<i>IQR</i>)		5.8 (5.5)	4 (2 - 7)
Working years in private sector, mean (<i>SD</i>) median (<i>IQR</i>)		3.7 (5.0)	2 (0 - 5)

More analytical one hundred forty five of the participants were men (43.4%) and one hundred eighty nine were women (56.6%).

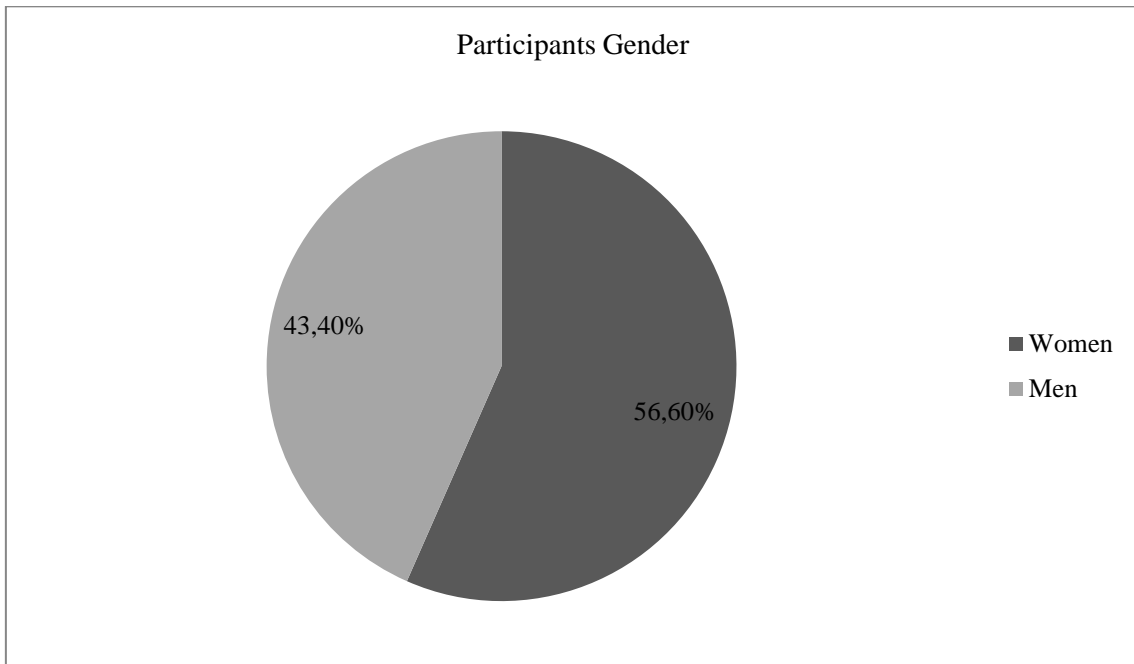


Figure 4.1. Gender of the participants of the study

According to the findings of this research, seventy three of the respondents (21.9%) were born between the years 1946-1964 (Baby Boomers), two hundred twelve (63.5%) were born between the years 1965-1976 (Generation X) and forty nine (14.7%) between the years 1977-1995 (Millennials).

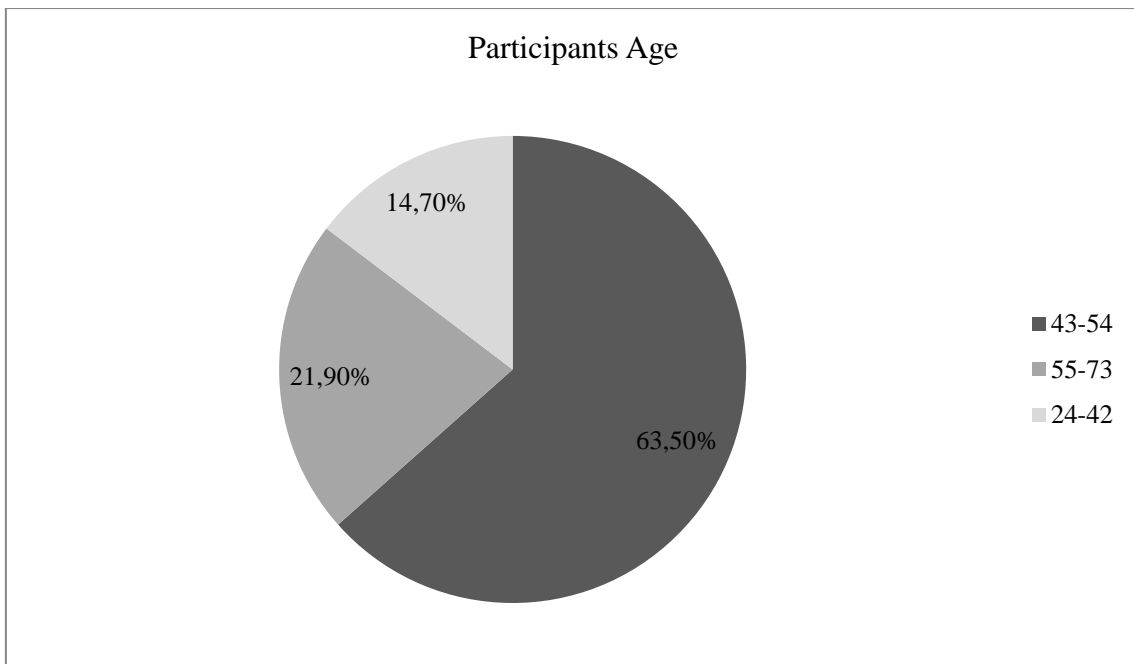


Figure 4.2. Age of the participants of the study

Only thirty five of the participants (10.5%) had graduated from the National Centre for Public Administration and Local Government and one hundred eight (41.3%) of the participants studied Administrative & Financial Science / Business Administration. Also twenty five of the participants (54.5%) held a master degree, twenty six (7.8%) held a PhD, seventy seven of the participants (23.1%) were University graduates, thirty four (10.2%) graduated from a Technical University (TEI) and thirteen (3.9%) were high school and after high school graduates.

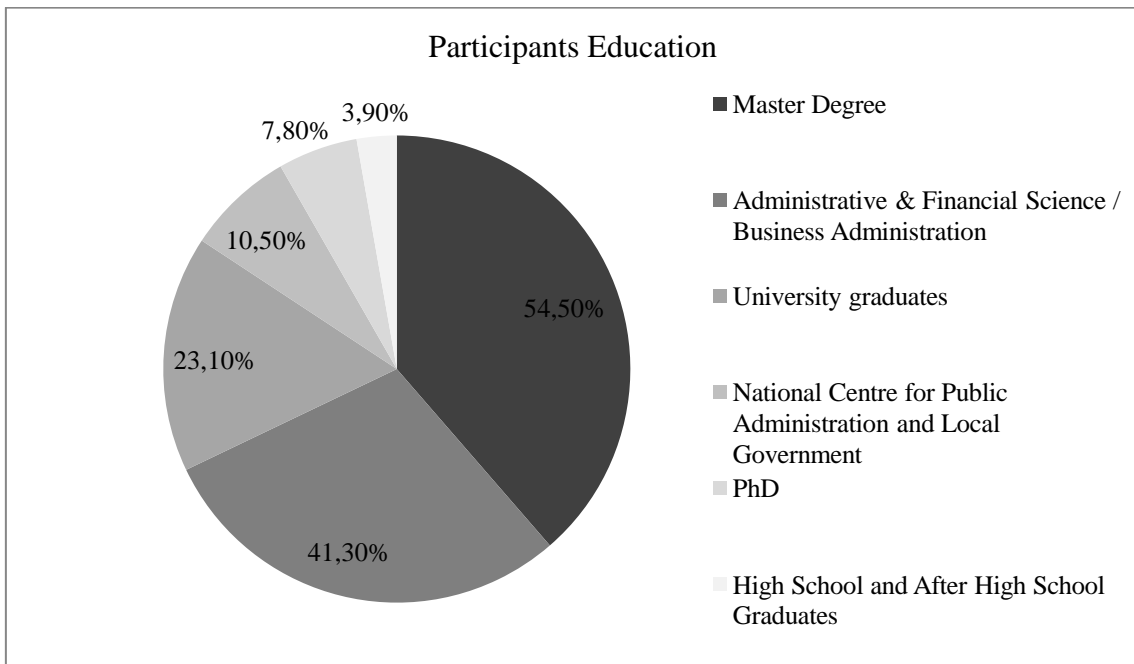


Figure 4.3. Education level of the participants of the study

Also, two hundred fifty six of the participants (76.6%) were head of department and fifty seven (17.1%) were head of directorate.

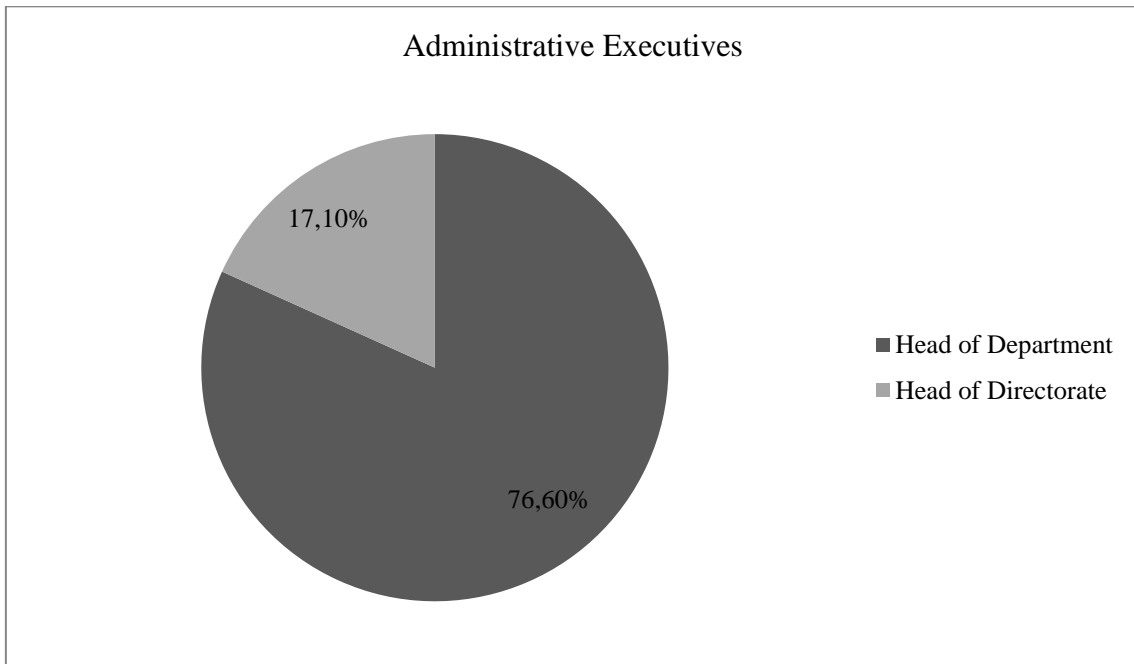


Figure 4.4. Working Position of Administrative Executives

Median number of working years in the private sector was 2 (*IQR*: 0-5) and median number of working years as head of directorate or head of department was 4 (*IQR*: 2-7).

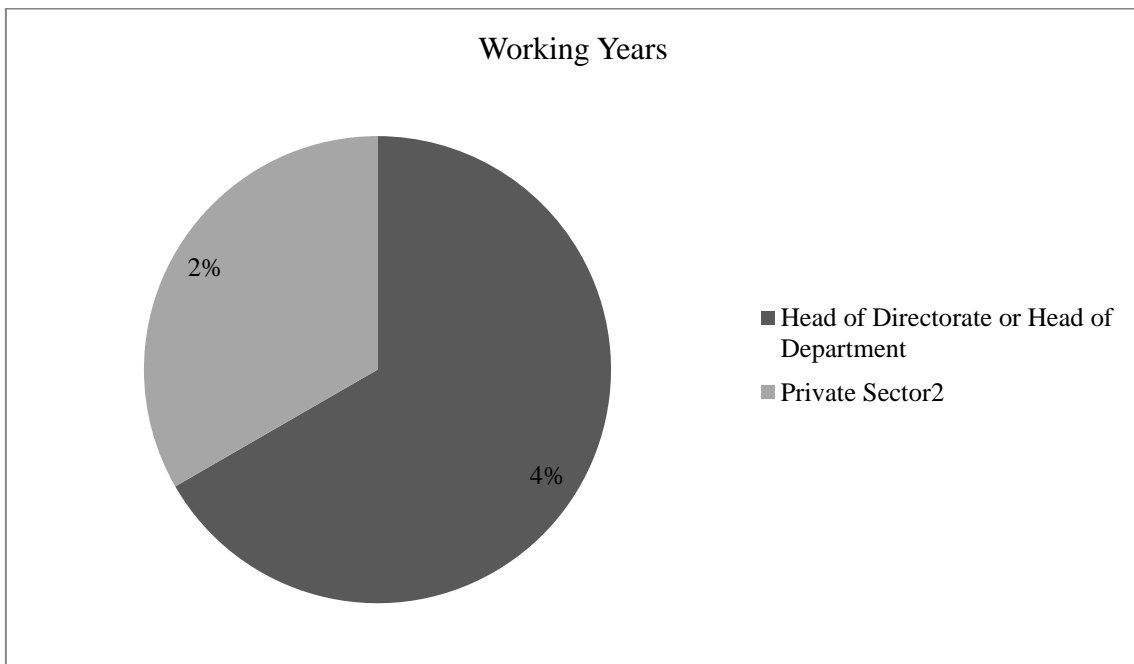


Figure 4.5. Working Experience of Administrative Executives

4.2. Deming Management Method implementation

At the following table 4.2, are presented the answers of the participants regarding the implementation of Deming Management Method in Greek Public Administration.

Table 4.2. Deming Management Method implementation

Deming Management Method	Never	To little extend	To some extend	To great extend	Always
	(%)	(%)	(%)	(%)	(%)
Implementation at present	10.6%	15.2	25.8	34.6	13.8
Added value for the organization	7.1%	10.2%	21.2%	36.5%	25%
Implementation in the future	7.5%	10.2%	19.2%	36.7%	26.4%

In more detail the results of the survey, show that at present the 10.6% of Public Administration executives never apply the Deming Management Method, where the 15.2% of Public Administration executives apply the Deming Management Method to little extend, the 25.8% to some extent, the 34.6% to great extent and the 13.8% always.

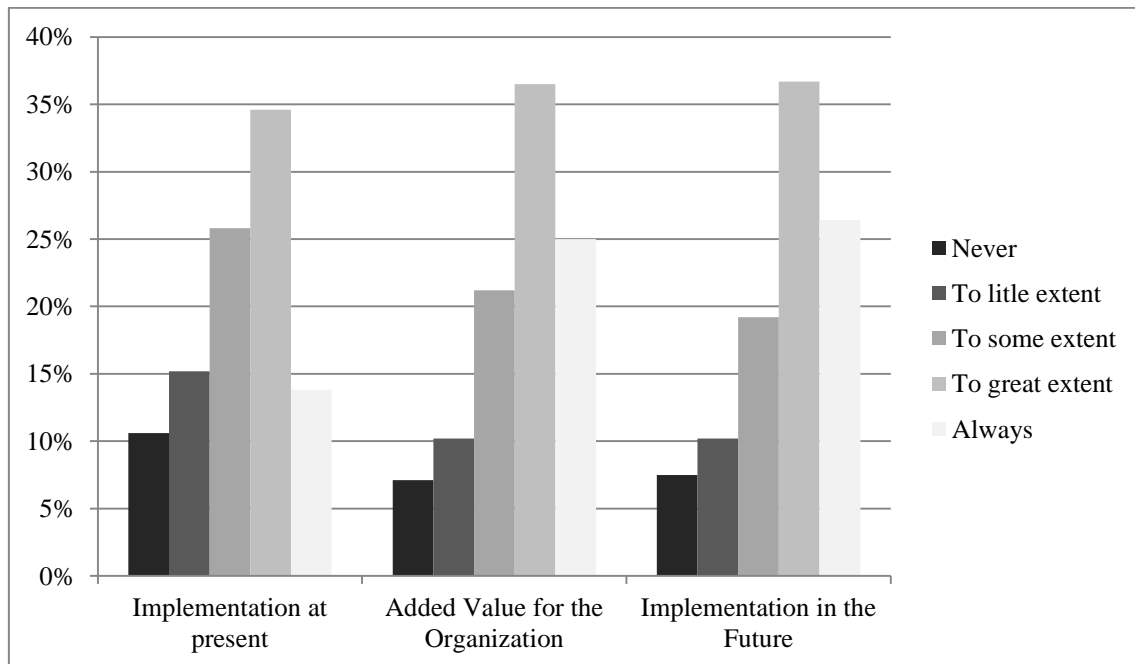


Figure 4.6. Implementation of Deming Management Method

Also, the 7.1% of Public Administration executives believe that Deming's Management Method never gives added value to the organization, the 10.2% believe that Deming's Management Method gives added value to the organization to little extent, the 21.2% to some extent, the 36.5% to great extent and the 25% always. Finally the 7.5% of Public Administration executives never have the intention to apply Deming's Management Method in their organization in the future, while the 10.2% have the intention to apply Deming's Management Method in their organization in the future to little extent, the 19.2% to some extent, the 36.7% to great extent, and the 26.4% always.

4.3. Key Performance indicators

The following table 4.3, presents the satisfaction level of Greek's Public Administration executives from the organizational performance as measured in relation to the key performance indicators of their organizations (goals, human resource, suppliers, improvements)

Table 4.3. Participants' satisfaction

To what extent the administrative executives of Public Administration are satisfied from:	Never	To little extend	To some extend	To great extend	Always
	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>
The achievement of the goals of their department	21 (6.3)	33(9.9)	102 (30.5)	146 (43.7)	32 (9.6)
The performance of the human resources of their department	14 (4.2)	29 (8.7)	74 (22.2)	198 (59.3)	19 (5.7)
The collaboration with their suppliers	70 (21)	26 (7.8)	123 (36.8)	103 (30.8)	12 (3.6)
The improvements they have applied to the operation of their department/directorate	21 (6.3)	19 (5.7)	55 (16.5)	188 (56.3)	51 (15.3)

Analytically the specific research shows that the 6.3% of Public Administration executives were not at all satisfied from the achievement of the goals of their depart-

ment, where the 9.9% were satisfied to little extend, the 30.5% to some extent, the 43.7% to great extent and the 9.6% always.

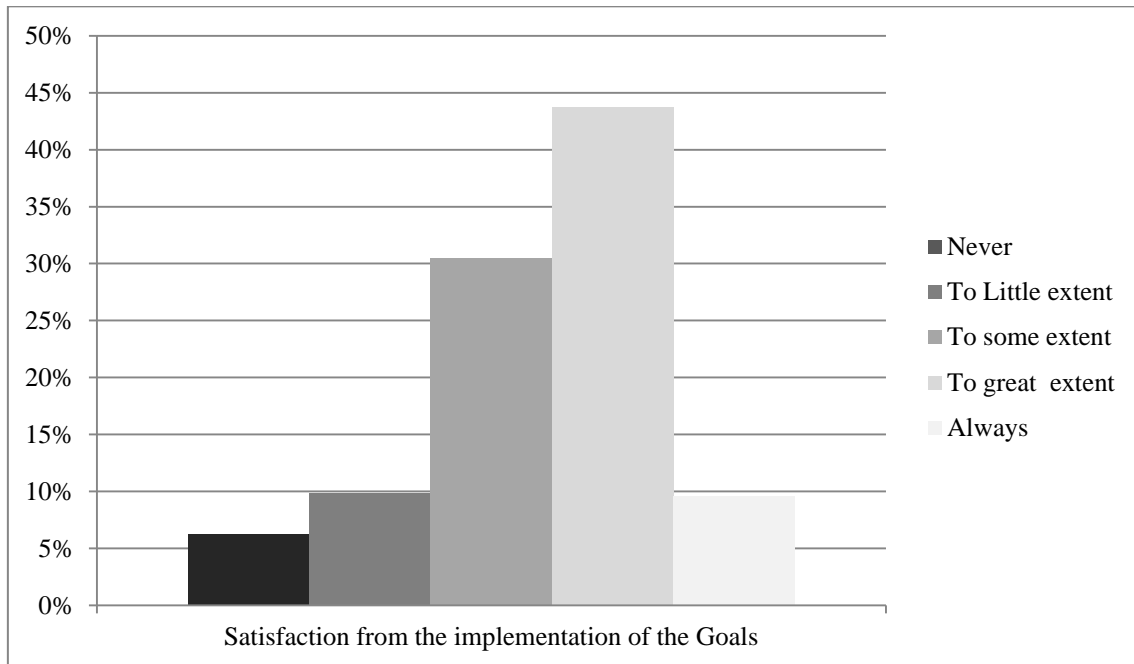


Figure 4.7. Satisfaction level of administrative executives of Public Administration of the achievement of the goals of their department

The 4.2% of Public Administration executives were not at all satisfied from the performance of the human resources of their department, while the 8.7% were satisfied to little extend, the 22.2% to some extent, the 59.3% to great extent and the 5.7% always.

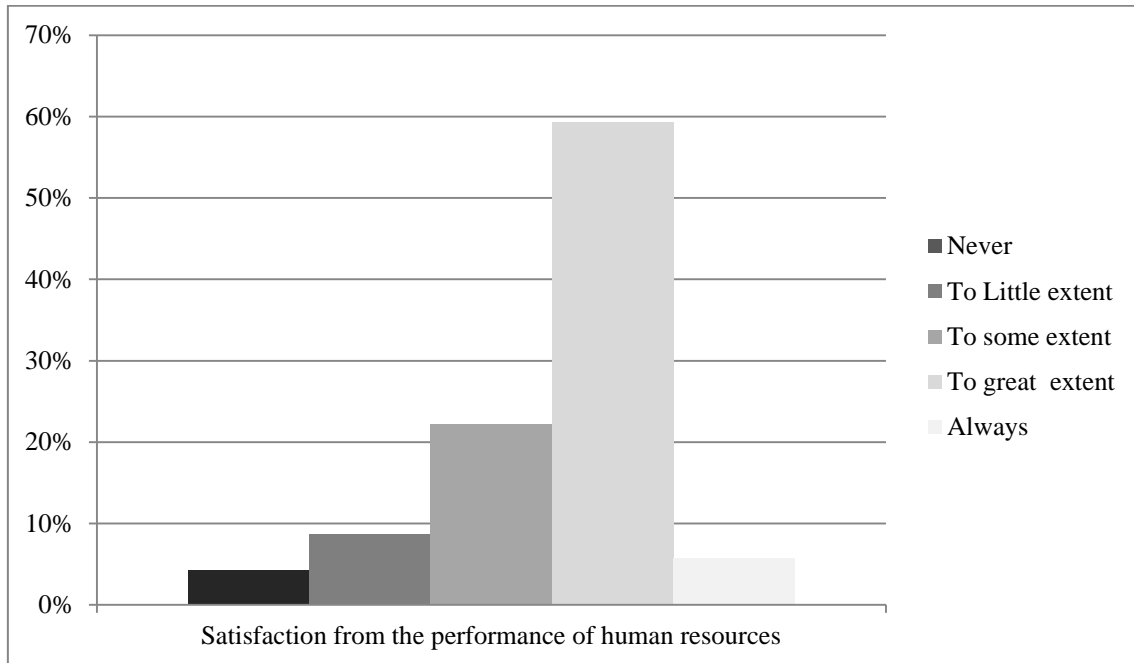


Figure 4.8. Satisfaction level of the administrative executives of Public Administration from the performance of human resources

Also the 6.3% of Public Administration executives were never satisfied from the collaboration with their suppliers, as the 7.8% were satisfied to little extend, the 36.8% to some extent, the 30.8% to great extent and the 3.6% always.

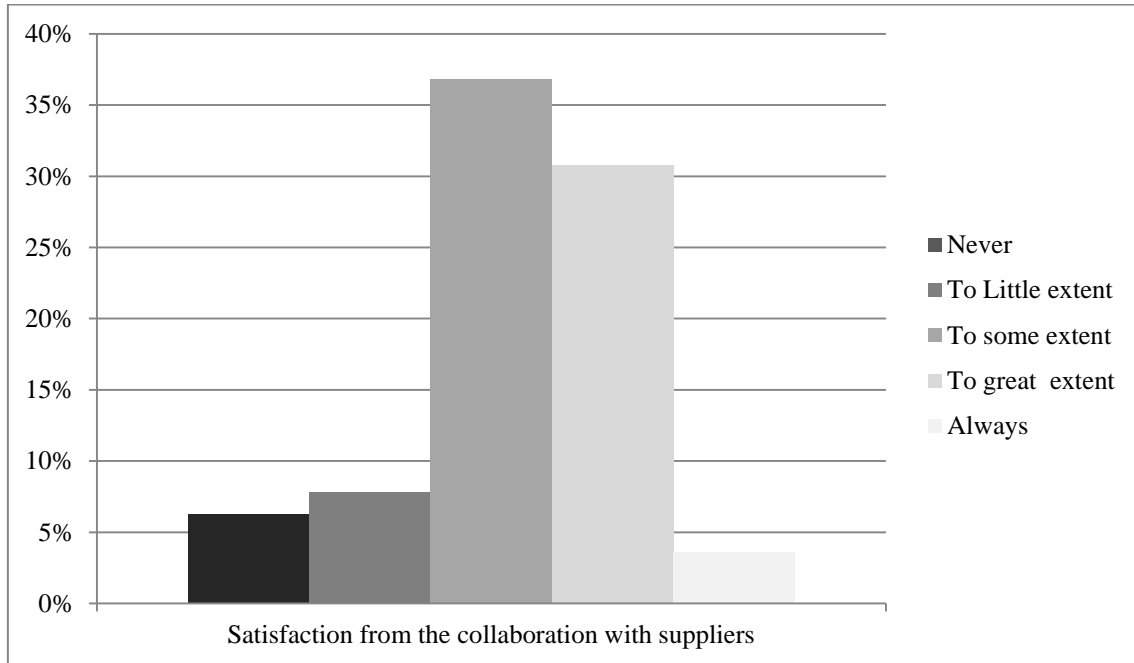


Figure 4.9. Satisfaction level of the administrative executives of Public Administration from the collaboration with suppliers

Finally as it is presented at figure 4.10, the 21% of Public Administration executives were not at all satisfied from the improvements they have applied to the operation of their department/directorate, where the 5.7% were satisfied to little extend, the 16.5% to some extent, the 56.3% to great extent and the 15.3% always.

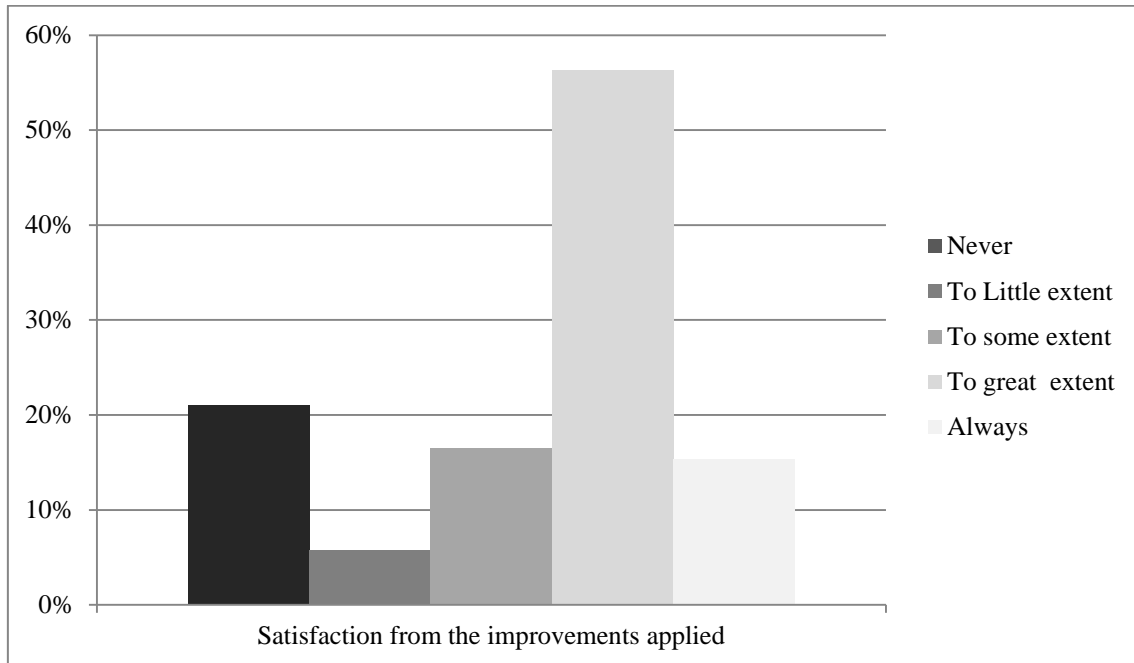


Figure 4.10. Satisfaction level of the administrative executives of Public Administration from the improvements they have applied

4.4. Factor Analysis

The results from the factor analysis using principal components method and varimax rotation for the practices in the present are given in the following 4.4 table.

Table 4.4. Results from Factor Analysis of the Deming Management Method (DMM) Questionnaire

DMM item	Factor Loading				
	1	2	3	4	5
Factor 1: Deming on People					
29. Do you ensure an environment of trust and freedom of expression without criticism for human resources?	.75	.23	-.01	.13	-.01
31. Do you encourage open and honest	.75	.27	.11	.08	-.07

	communication with the human resources of the organization while eliminating fear?					
46.	Do you cultivate a culture of administrative efficiency where all human beings feel proud of their work?	.71	.22	.16	.11	.11
49.	Do you Lead by empowering, recognizing and rewarding human resources?	.70	.17	.22	.01	.06
33.	Do you make human resources feel valuable?	.70	.14	.08	.19	-.06
30.	Do you encourage employees to participate in the decision-making process?	.70	.16	.23	.12	-.14
32.	Do you inform all human resources that the ultimate goal of the organization is to improve the quality of services provided?	.69	.26	.21	.11	-.03
27.	Provide guidance and support to human resources so that it can perform its job effectively?	.66	.28	.01	.11	.02
51.	Do you encourage human resources to continuously being trained, to prepare for future changes and challenges?	.64	.10	.29	.09	-.04
38.	Do you emphasize on cooperation and consensus, with the aim of managing conflicts effectively and reducing competitive relationships within the organization?	.61	.25	.16	.07	.26
48.	Do you ensure a quality work environment for human resources of your organization?	.60	.17	.26	.05	.04
28.	Do you eliminate the barriers to the organization's processes and prevent human resources from performing their job	.58	.25	.09	.26	.16

	effectively?					
42.	Do you use slogans and human resources prompts to eliminate errors/ omissions / overlaps and defects?	.54	.04	.27	.16	.27
47.	Do you evaluate people of your organization without classifying them according to their performance and without comparing them?	.50	-.10	-.07	.27	.23
36.	Do you ensure that each department interacts effectively with the other departments?	.48	.26	.11	.16	.24
44.	Do you ensure the necessary resources and ethical support, so that the levels of quality services are ambitious and at the same time feasible?	.46	.29	.15	.04	.21
41.	The leadership of the organization provides human resources with appropriate methods / processes to effectively achieve its goals.	.41	.27	.23	.06	.24
53.	Do you encourage people to adopt quality improvement strategies?	.41	.28	.29	.18	.15
Factor 2: Deming on Leadership						
6.	Do you apply in your organization Vision and Strategy for quality?	.21	.75	.25	.09	.05
5.	Do you develop in your organization Vision and Strategy for quality?	.24	.71	.29	.11	.06
3.	Are you constantly improving the processes of your organization's products and services?	.29	.67	.09	.04	.15
1.	Do you develop long-term quality-based planning in your organization with the goal of always being better?	.29	.65	.16	.16	-.03

12.	Are you looking for the causes that caused the errors you may find?	.28	.64	.01	.15	-.02
4.	Are you preparing for future challenges that you have foreseen?	.14	.64	.05	.09	-.02
11.	Do you incorporate quality control techniques at each stage of delivering your services to the recipients?	.24	.61	.22	.26	.06
2.	Do you invest resources in research and education?	-.08	.58	.21	.02	-.02
8.	Do you establish quality culture throughout the organization?	.22	.57	.18	.15	.18
10.	Do you incorporate quality control techniques into each stage of the design of the services you provide?	.25	.56	.19	.24	.05
13.	Do you take steps to eliminate the causes of errors / failures/ overlaps in service provision?	.25	.54	.11	.26	.09
55.	Do you use an effective action plan to deliver quality upgrades to your organization?	.29	.53	.26	.13	.05
7.	Do you have as priority the needs of the recipients of your services?	.28	.52	.03	.12	.07
54.	Is Quality improvement in line with the organization's Vision and Strategy?	.27	.48	.27	.29	.12
9.	Is leadership committed to continually improving the quality of the provided services?	.08	.47	.28	.11	.28
21.	Customer requirements are taken into account in the process of developing / creating a service?	.28	.45	.15	.27	-.01
22.	You are constantly improving your systems and processes	.27	.42	.29	.14	.06

Factor 3: Deming on Education & Training

24.	The human resources of the organization (managers and subordinates) are trained in the use of statistical methods for decision making	.09	.12	.65	.41	.11
34.	Do you establish quality improvement teams to continually improve the organization's processes?	.28	.14	.56	.23	.09
25.	Managers are trained to be well aware of the policies, strategies and the way that the organization functions	.19	.29	.56	.19	.03
50.	Do you improve the skills and skills of employees through training programs?	.27	.26	.56	.06	.04
52.	Are you trained to help human resources adapt to changes and continually improve the organization's management system?	.28	.23	.48	.02	-.07
26.	The organization's human resources (managers and subordinates) are trained in Quality Management	-.03	.09	.46	.05	.02
37.	Do you use inter-departmental teams to build interaction and reduce competitive relationships between departments and employees?	.27	.20	.43	.03	.25
23.	Do you provide education and training to human resources to continually improve their work?	.29	.28	.40	-.03	.13

Factor 4: Deming on Suppliers

16.	Do you develop long-term partnerships with your suppliers?	.04	.05	.03	.78	.09
17.	Do you choose your suppliers, relying primarily on quality combined with the	.28	.25	.11	.74	-.05

	price of the products or services?					
18.	Do you require from your suppliers to devote time to improve the quality of their own products and services?	.25	.17	.26	.71	.06
15.	Are your suppliers involved in the process of developing / creating a service?	.02	.21	.14	.70	.01
20.	Do you use statistics regarding quality to ensure that your suppliers meet quality standards?	.14	.21	.27	.62	-.05
14.	Do you use statistical methods of quality control to prove that the process is working successfully?	.11	.28	.29	.46	-.02
19.	Do you choose your suppliers, relying only on the price of the products or services?	-.29	-.02	.21	.42	.21
Factor 5: Deming on Systems						
35.	You believe that only employees are held liable for errors / omissions / complaints occurring in service provision	-.19	.23	.02	-.01	.69
45.	Do you evaluate the organization's operating procedures, with a greater emphasis on them (and not the people who implement them)?	.28	.17	.01	.07	.63
40.	Organization's employees are responsible for removing pathogens caused by the system	.26	-.01	.12	-.05	.58
43.	Do you focus solely on achieving numerical goals without emphasizing on quality?	-.28	-.11	.17	.05	.52
39.	The leadership of the organization is responsible for removing the pathogens	.29	.11	.17	.04	.43

due to the system (i.e. the causes of errors / omissions, defective products)

% Variance explained	18.00	13.60	8.40	7.50	4.40
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Five factors came up from the analysis, with eigenvalue > 1. Factor “Deming on People” explained 18% of the variance, “Deming on Leadership” explained 13.6% of the variance, “Deming on Education & Training” explained 8.40% of the variance, “Deming on Suppliers” explained 7.50% of the variance and “Deming on Systems” explained the 4.40% of the variance. In total 51.9% of the variance was explained. Loadings ranged from .40 to .78. Thus the score for each factor could range from 1 to 5, with higher values indicating higher levels of Deming initiatives. The scores for the factors are presented at the following 4.5 table.

Table 4.5. Deming Management Method factors

	Minimum	Maximum	Mean (SD)	Median (IQR)	Cronbach's <i>a</i>
Deming on People	1.00	4.78	3.6 (0.67)	3.72(3.28–4.06)	.98
Deming on Leadership	1.00	4.76	3.34 (0.71)	3.41 (3 – 3.76)	.98
Deming on Education & Training	1.00	5.00	3.05 (0.79)	3.13 (2.63 – 3.5)	.96
Deming on Suppliers	1.00	4.71	2.68 (0.88)	2.71 (2 – 3.29)	.95
Deming on Systems	1.00	4.60	2.92 (0.64)	2.8 (2.4 – 3.4)	.92

Median - *Mdn* score in factor “Deming on People” was 3.72 (*IQR*: 3.28 – 4.06), in factor “Deming on Leadership” was 3.41 (*IQR*: 3 – 3.76), in “Deming on Education & Training” was 3.13 (*IQR*: 2.63 – 3.5), in factor “Deming on Suppliers” was 2.71 (*IQR*: 2 – 3.29) and in “Deming on Systems” was 2.8 (*IQR*: 2.4 – 3.4). All *Cronbach's a* reliability coefficients were above .7 and there is acceptable reliability of the questionnaire. More specifically the coefficient alpha (α) for the factor “Deming on People” was found .93, for the factor “Deming on Leadership” .93, for the factor “Deming on

Education & Training” .85, for the factor “Deming on Suppliers” .81 and for the factor “Deming on Systems” .77.

The first factor, “Deming on People”, consists of the items 27, 28, 29, 30, 31, 32, 33, 36, 38, 41, 42, 44, 46, 47, 48, 49, 51 and 53; the second factor , “Deming on Leadership”, consists of items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 21, 22, 54 and 55; the third factor , “Deming on Education and Training”, consists of items 23, 24, 25, 26, 34, 37, 50 and 52; the fourth factor, “Deming on Suppliers”, consists of items 14, 15, 16, 17, 18, 19 and 20; and the fifth factor, “Deming on Systems”, consists of items 35, 39, 40, 43, and 45. The score of the items for each factor was summed and the result was divided by the number of each factors’ items, showing the Implementation of Deming Management Method Factors (figure 4.11).

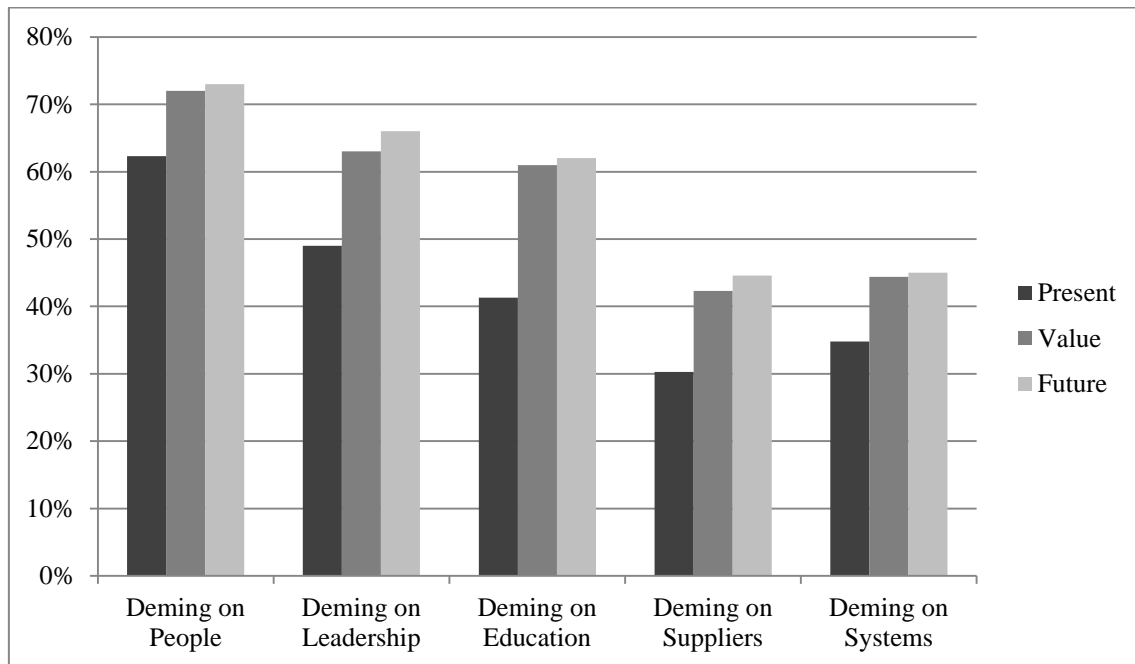


Figure 4.11. Implementation of Deming Management Method Factors

4.5. Spearman Correlation

Spearman correlation was performed to determine whether there was a relationship between the key factors of Deming’s Management Method and the specific key performance indicators of the questionnaire and the strength and the direction of this relationship.

Table 4.6. Significance of relationship between participants’ satisfaction levels regarding specific key performance indicators and the factors of Deming’s Management Method

How satisfied are you, as head of department, from				
	The achievement of the goals of your department?	The performance of the human resources of your department?	The collaboration with suppliers?	The improvements have applied to the operation of the department /directorate?
Deming on People	.125* (<i>p</i> =.023)	.090 (<i>p</i> =.099)	-.008 (<i>p</i> =.883)	.174** (<i>p</i> =.001)
Deming on Leadership	.036 (<i>p</i> =.519)	.076 (<i>p</i> =.168)	-.040 (<i>p</i> =.465)	.114* (<i>p</i> =.038)
Deming on Education & Training	-.018 (<i>p</i> =.741)	.059(<i>p</i> =.288)	-.092 (<i>p</i> =.095)	.123* (<i>p</i> =.025)
Deming on Suppliers	.014 (<i>p</i> =.796)	.176** (<i>p</i> =.001)	.001 (<i>p</i> =.981)	.039 (<i>p</i> =.480)
Deming on Systems	-.041 (<i>p</i> =.452)	-.075 (<i>p</i> =.172)	-.071 (<i>p</i> =.194)	-.023 (<i>p</i> =.673)

p*< .05; *p*< .01; ****p*< .001

From the results presented in the table 4.4, it appears that there is a strong and positive relationship between the factor “Deming on People” and the key performance indicator that shows the level of satisfaction of “the administrative executives regarding the achievement of the goals of their department” with a correlation of $r=.125^*$, $df = 332$, $p=.023$ and the key performance indicator that shows the level of satisfaction of “the administrative executives regarding the improvements they have applied on the operational level of their department” with a correlation of $r=.174^{**}$, $df = 332$, $p=.001$. That means that the more the key factor “Deming on People” increases, the more the satisfaction level of the administrative executives regarding “the achievement of the goals of their department” and “the improvements they have applied on the operational level of their department” increase. Additionally, no significant relationship was recorded be-

tween the factor “Deming on People” and the key performance indicator that shows the level of satisfaction of “the performance of the human resources of their department” with a correlation of $r=.090$, $df = 332$, $p=.099$ and the key performance indicator that shows the level of satisfaction of “the collaboration with suppliers” with a correlation of $r=-.008$, $df = 332$, $p=.883$.

Furthermore, there was a strong and positive relationship between the key factor “Deming on Leadership” and the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” with a correlation of $r=.144^*$, $df = 332$, $p=.038$. That means that the more the key factor “Deming on Leadership” increases, the more the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” increases. Additionally, no significant relationship was found between the factor “Deming on Leadership” and the key performance indicators that show the level of satisfaction of “the achievement of the goals of their department” with a correlation of $r=.036$, $df = 332$, $p=.519$, “the performance of the human resources of their department” with a correlation of $r=.076$, $df = 332$, $p=.168$ and “the collaboration with suppliers” with a correlation of $r=-.040$, $df = 332$, $p=.465$.

Regarding the key factor “Deming on Education and Training”, there was a strong and positive relationship with the key performance indicator of the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” with a correlation of $r=.123^*$, $df = 332$, $p=.025$. That means that the more the key factor “Deming on Education and Training” increases, the more the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” increases. Also, no significant relationship was found between the factor “Education and Training” and the key performance indicators that show the level of satisfaction of “the achievement of the goals of their department” with a correlation of $r=-.018$, $df = 332$, $p=.741$, “the performance of the human resources of their department” with a correlation of $r=.059$, $df = 332$, $p=.288$ and “the collaboration with suppliers” with a correlation of $r=-.092$, $df = 332$, $p=.095$.

In addition the key factor “Deming on Suppliers”, is significantly associated with a strong and positive relation with the satisfaction level of “the administrative ex-

executives regarding the performance of the human resources of their department” with a correlation of $r=.176^{**}$, $df = 332$, $p=.001$. That means that the more the key factor “Deming on Suppliers” increases, the more the satisfaction level of “the administrative executives regarding the performance of the human resources of their department” increases. Furthermore, no significant relationship was found between the factor “Deming on Suppliers” and the key performance indicators that show the level of satisfaction of “the achievement of the goals of their department” with a correlation of $r=.014$, $df = 332$, $p=.796$, “the collaboration with suppliers” with a correlation of $r=.001$, $df = 332$, $p=.981$ and “the improvements they have applied to the operation of the department /directorate” with a correlation of $r=.039$, $df = 332$, $p=.480$.

Finally, no significant relationship was found between the key factor “Deming on Systems” and the key performance indicators that show the level of satisfaction of “the achievement of the goals of their department” with a correlation of $r=-.041$, $df = 332$, $p=.452$, “the performance of the human resources of their department” with a correlation of $r=-.075$, $df = 332$, $p=.172$, “the collaboration with suppliers” with a correlation of $r=-.071$, $df = 332$, $p=.194$ and “the improvements they have applied to the operation of the department /directorate with a correlation of $r=-.023$, $df = 332$, $p=.673$.

CHAPTER V

DISCUSSION

This study is an attempt to assist the administrative executives of Greek Public Administration, by identifying management practices of Deming Management Method about quality, utilized by managers of departments and directorates of the organizations of Greek public sector. The Deming Management Method may help the administrative executives of Greek Public Administration apply management principles and practices to their organizations and make them to be more effective, less costly and responding to the ever changing needs of the citizens.

In the present study as it was the first time using a new questionnaire, an exploratory factor analysis was conducted to further examine the construct validity of the scale. A data reduction procedure was applied, which searched for latent constructs that may underlie the questionnaire (Bandalos & Finney, 2018). The exploratory factor analysis yielded a 5-factor model, where factor 1 consists of item questions 27, 28, 29, 30, 31, 32, 33, 36, 38, 41, 42, 44, 46, 47, 48, 49, 51 and 53, and is named “Deming on People”; factor 2 consists of item questions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 21, 22, 54 and 55 and is named “Deming on Leadership”; item questions 23, 24, 25, 26, 34, 37, 50 and 52 load on factor 3 which was named “Deming on Education and Training”; factor 4 consists of item questions 14, 15, 16, 17, 18, 19 and 20, and is named “Deming on Suppliers”; and factor 5 consists of items 35, 39, 40, 43, and 45, which is named “Deming on Systems”. All the factor loadings in the Confirmatory Factor Analysis are larger than .40 and statistically significant

Based on the results of the particular research, the key factor “Deming on People” is moderately applied in Greek Public Administration. Particular emphasis is given, mostly by managers of directorates, on providing support to the human resources to carry out their work effectively, to provide an environment of trust, freedom of expression and participatory management, to facilitate cooperation, competing trends and conflicts, in empowering, rewarding, training and educating human resources and finally cultivate a culture of administrative effectiveness, where all employees feel proud of their work (Deming, 1986). Also, research results showed that the more the key factor “Deming on People” increases, the more the satisfaction level of the administrative executives regarding “the achievement of the goals of their department” and “the improvements they

have applied on the operational level of their department” increases. These findings are consistent with the literature as many references have been devoted to the importance of the above features in the success of a variety of profit and nonprofit organizations (Appelbaum, Oulbacha, & Shapiro, 2018; Obeidat, Yousef, Tawalbeh, & Masa'deh, 2018; Wood, 2018). Empowerment equips individuals with the ability to make decisions and take the initiative that affects their lives as well as their internal and external customers. Also enhances employees’ satisfaction and fulfilment, promotes their creativity in products, services and processes improvement, resulting continuously value to the customer. Additionally by removing barriers and constraining policies in the working environment, the flow of communication and valuable information is facilitated. Moreover it encourages employees’ involvement and helps them to develop skills in teamwork, problem solving, and business operations and increase pride in their work and joy in the outcome. This approach helps employees to use their creativity, knowledge and skills for continuous improvement, costs reduction, customers’ satisfaction and achieving total quality, while fulfilling their individual needs (Pietenpol & Gitlow, 1996).

Regarding the second factor, “Deming on Leadership” is moderately applied in Greek Public Administration. Particular emphasis is given, mostly by managers of directorates, on giving particular emphasis to investigating and meeting the needs of the service recipients, identifying the causes of the errors occurred and eliminating them, continually improving organization's processes, developing a vision and strategy for quality with a view to continuous improvement aligned with the vision and strategy plan of the organization (Deming, 1986). Also, research results showed that the more the key factor “Deming on Leadership” increases, the more the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” increases. These Findings come in alignment with the literature as many researchers in the quality management literature have occupied with the effect of leadership on organization's managerial leadership. Applying Leadership characteristics in organizations, results enhancing employees' skills and developing their intrinsic motivation while maximizing their efficiency, improving organization’s quality, achieving long-term and short-term goals in a competitive environment (Carvalho, Sampaio, Rebentisch, Carvalho, & Saraiva, 2019; McNary, 1997; Rahman, et al., 2018).

Also leadership is the foundation for organizational performance and growth, as organizations with effective leadership tend to innovate, respond to the rapid changes in business, technology, political and social environments, creatively address challenges, and sustain high performance (Amagoh, 2009).

Moreover, the results of the particular research showed that the third factor “Deming on Education & Training” is applied to little extent in Greek Public Administration. Particular emphasis is given, mostly by managers of directorates on encouraging the human resources to continuous education, providing to the human resources training in the use of statistical methods for decision making and Quality Management. Additionally they establish quality improvement teams to continually improve the organization's processes, use cross-cutting teams to build interaction and reduce competitive relationships and implement training programs to improve the employees’ skills. Finally they are trained to be aware of the policies and strategies of the organization, and to contribute in the adaptation of human resources to the changes and continuous improvement of the administration system (Deming, 1986). Also, research results showed that the more the key factor “Deming on Education & Training” increases, the more the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” increases. These findings are supported by the literature, where many researchers in the literature dealing with Education and Training of human resources and the organizations’ performance, have stated that the continuous effective trained human resources of an organization differentiates a great organization from a good one, in the new era. Organizations that support employees’ education and training help them to adapt to the ever changing environment and update their skills and knowledge, with final results to achieve both short and long term benefits. Training is the most powerful method to communicate organizational goals to employees, blow high quality in human resources within the organization and enhance their productivity (Akdere, 2009; Galanou & Pripora, 2009; Powell, 1995). Additionally, education and training are the most influential processes that develop the capacity of employees on decision making, teamwork, problem-solving and interpersonal relations and enhanced performance. Moreover education and training affects the successful accomplishment of organizations’ goals and objectives have beneficial impact on the organizations’ level of productivity and growth, as well as impacting on em-

ployees' performance, enhancing their commitment and maximizing their potential (Nda & Fard, 2013).

Regarding the fourth factor, "Deming on Suppliers" is applied in little extent in Greek Public Administration. Particular emphasis is given, mostly by managers of directorates, to choosing suppliers, relying primarily on quality combined with the price of the product or service (Deming, 1986). Also, research results showed that the more the key factor "Deming on Suppliers" increases, the more the satisfaction level of "the administrative executives regarding the performance of the human resources of their department" increases. These findings are in line with the literature, while various researchers indicated that in today's competitive and uncertain environment, effective collaboration with suppliers for organizations is crucial in meeting customers' changing needs. Suppliers' correspondence in delivering high-quality products and services on-time in a cost effective way, leads organizations to capture a good market share along with competitive advantage, long-term strategic benefits for their survival, competitive advantage and significant overall effectiveness in this era of furious competition (Chuah, Peng Wong, Ramayah, & Jantan, 2010; Routroy & Pradhan, 2014).

Finally the fifth factor, "Deming on Systems" is applied to little extend in Greek Public Administration. Particularly it is worth noting, that the managers of directorates consider the leadership of the organization more responsible for removing the pathogens caused by the system than organization's employees. In addition, while they do not adequately evaluate the processes of organization, they believe that their value for the organization is important and consider their continuous improvement necessary in the future (Deming, 1986). These findings come in alignment with the literature which argues that the importance of the effectiveness and efficiency of the organization processes and elements has increased significantly in recent years. Systems tend to include multiple processes and elements that interact and interrelate with each other in specific and dynamic ways, thus transforming organizations into dynamically complex adaptive systems that succeed in producing and maintaining competitive advantage, maximizing their profitability and ensure their viability (Aladwan & Forrester, 2016; Edgeman, 2018). Nevertheless, research results didn't show a correlation between the key factor "Deming on Systems" and any one of the key performance indicators.

To what extent is the Deming's management method being implemented in the organizations of Greek public administration, by the senior and junior level public administrators?

Based on the findings of this study, Deming Management Method is applied in a moderate extent from the managers of the departments and directorates of Greek Public Administration. Only forty eight percent of the administrative executives of Greek Public Administration are using the principles and practices of Deming Management Method and almost all of those practices were applied significantly less frequently in the present, compared to the future and compared to the value that they had for the organization, according to the participants. Since almost sixty two percent of the administrative executives of Greek Public Administration believe that Deming's Management Method principles add value to the organizations and the sixty three percent have the intention to apply them in the future. This is a unique finding since there is no relevant supporting literature in the field of Public Administration. So far, the literature dealing with this issue studies the application or not of Deming's Management Method to the organizations and not the extent to which it is applied to them. Specifically, in many cases Deming's Management Method is completely confused or totally identified with Total Quality Management (Gomes et al., 2019; Marcus, 2008; Rodgers & Antony, 2019). Concerning the key factors that emerge from this study, it appears that Public Administration executives, who apply Deming's Management Method, focus primarily on principles and practices of human resource management, leadership, education and training, collaboration with suppliers and systemic consideration of their organization and processes.

To what extent the senior and junior level public administrators of Greek public administration believe that the principles and practices of Deming's Management Method add value to their organization

Based on the findings of this study, it is believed in a great extent from the managers of the departments and directorates of Greek Public Administration that Deming Management Method adds value in their organizations. Almost sixty two percent of the administrative executives of Greek Public Administration believe that Deming's Management Method principles and practices are the “basis for transformation” to improve the performance of their organizations (Deming, 1986). Additionally, the results of this research showed that the administrative executives believe that the principles and prac-

tices of the factors “Deming on People”, “Deming on Leadership” and “Deming on Education & Training” add value in a great extent in their organizations. Related literature concludes that effective leadership by utilizing practices of support and guidance of human resources, and encouragement of continuing education and training, contribute to the continuous improvement of the organization's internal environment, staff fulfillment and therefore customer satisfaction (Hales & Chakravorty, 2006). Although related literature indicates that continuous improvement of processes and systems, as well as considering suppliers as partners leads organizations to succeed in producing and maintaining competitive advantage, maximizing their profitability and ensuring their viability, the administrative executives of Greek Public Administration believe that the principles and practices of the factors “Deming on Suppliers” and “Deming on Systems” add value in a little extent in their organizations (Edgeman, 2018; Routroy & Pradhan, 2014).

To what extent the senior and junior level public administrators of Greek public administration have the intention to implement the principles and practices of Deming's Management Method in the future

Based on the findings of this study, the managers of the departments and directorates of Greek Public Administration have the intention in a great extent, to apply Deming Management Method in their organizations. Since almost sixty three percent of the administrative executives of Greek Public Administration have the intention to apply Deming's Management Method principles and practices in their organizations in the future. Particularly it is also concluded that the administrative executives have the intention to apply the principles and practices of the factor “Deming on People”, “Deming on Leadership” and “Deming on Education & Training” in a great extent in their organizations in the future while they have the intension to apply the principles and practices of the factors “Deming on Suppliers” and “Deming on Systems” in little extent in their organizations it in the future. Concerning these findings, there is no related supporting literature. This consists a unique and original finding since there is no related supporting literature.

To what extent the senior and junior level public administrators of Greek public administration are satisfied from the achievement of the goals of their department

Moreover, the analysis of the key performance indicators, that present the degree of satisfaction of Greek's Public Administration executives from the level of organiza-

tional performance as measured by satisfaction levels in relation to the key performance indicators of their organizations (goals, human resource, suppliers, improvements) showed that about the half of the participants were satisfied from the achievement of the goals of their department. Critical studies have emphasized that despite the fact that in the public sector the goals are unequivocal fuzzy and makes it difficult to measure performance, their achievement is a key criterion for measuring performance (Argento, Grossi, Jääskeläinen, Servalli, & Suomala, 2019; Spekle & Verbeeten, 2014)

To what extent the senior and junior level public administrators of Greek public administration are satisfied with the performance of the human resources of their department

Additionally, the analysis of the key performance indicators that presents the degree of satisfaction of Greek's Public Administration executives from the implementation of the initiatives of Deming's Management Method showed that more than the half of Greek's Public Administration executives was satisfied from the performance of the human resources of their department. The relevant literature proves that human resources is the most important asset of an organization that can assure a significant competitive advantage and that effective human resources management is a key factor for organization's effective performance. Particularly, optimum human resources performance is predominately attained when firms link human resources enhancing with an organization's quality strategy. Furthermore, a quality perspective approach of human resources helps organization create an egalitarian work environment that positively influences overall operational performance. (Youndt, Snell, Dean Jr, & Lepak, 1996).

To what extent the senior and junior level public administrators of Greek public administration are satisfied with the collaboration with their suppliers

However, the analysis of the key performance indicators that presents the degree of satisfaction of Greek's Public Administration executives from the collaboration with their suppliers showed that a small number of participants are satisfied from the collaboration with their suppliers. Though the literature, as mentioned above indicates that successful collaboration with suppliers leads an organization to continuous performance growth (Chuah et al., 2010; Routroy & Pradhan, 2014), the results of this research point out that the relationship with suppliers in Public Administration needs re-evaluation in order a better planning to be made for effective supplier chain management.

To what extent the senior and junior level public administrators of Greek public administration are satisfied with the improvements they have applied on the operational level of their department

Finally the analysis of the key performance indicators that presents the degree of satisfaction of Greek's Public Administration executives from the improvements they have applied on the operational level of their department showed that almost two thirds of the participants were satisfied from the improvements they have applied to the operational level of their department or directorate. Various literature reveals that organizations that develop continuous operational improvement routines increase their performance in terms of quality, delivery and costs (Knol, Slomp, Schouteten, & Lauche, 2019; Matthews, MacCarthy, & Braziotis, 2017).

Is there a significant correlation between the key factors of Deming's Management Method (Deming on People, Deming on Leadership, Deming on Education and Training, Deming on Suppliers and Deming on Systems) and the organizational performance of the abovementioned organizations as measured by satisfaction levels in relation to the key performance indicators of Greek Public Administration (goals, human resource, suppliers, improvements)?

The findings of the study confirmed the Research Question if there is a relationship between the key factors of Deming's Management Method (Deming on People, Deming on Leadership, Deming on Education and Training, Deming on Suppliers and Deming on Systems) and the key performance indicators of Greek Public Administration (goals, human resource, suppliers, improvements). More specifically Spearman correlation showed that there is a strong and positive relationship between the factor Deming on People and the indicator that shows the level of satisfaction of "the administrative executives regarding the achievement of the goals of their department" and the indicator that shows the level of satisfaction of "the administrative executives regarding the improvements they have applied on the operational level of their department". That means that the more the key factor "Deming on People" increases, the more the satisfaction level of the administrative executives regarding "the achievement of the goals of their department" and "the improvements they have applied on the operational level of their department" increase. This is in line with the literature, as it shows that many companies, leaders in their field, who have given particular weight to their human resources, have

achieved amazing results in satisfying their customers and increasing their competitiveness. In example, Motorola which its generic strategy can be characterized as cost leadership has monitored powerful growth, especially after 1980, when it implemented a combination of innovative features and quality initiatives. Specifically, Motorola has developed a strong culture based on people's core values, where respect for the individual is a prerequisite, providing support and all the necessary tools, creating the right conditions for free expression and empowerment, are factors that contribute to the growth of the potential of all human resources. These factors enhanced employees' motivation and commitment towards effective achieving of the organizational goals and led Motorola to a strong growth since 1980 and save \$5.4 billion in operational processes from 1990 to 1995! (Alänge, 1992; Dahlgaard & Mi Dahlgaard-Park, 2006).

Also the findings of the study confirmed the Research Question if there is a relationship between the key factor Deming on Leadership and the key performance indicators of Greek Public Administration (goals, human resource, suppliers, and improvements). Analytically Spearman correlation indicated that there was a strong and positive relationship between the factor “Deming on Leadership” and the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department”. That means that the more the key factor “Deming on Leadership” increases, the more the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” increases. This is in alignment with the bibliography which proves that choosing the right leadership style for continuous improvement and innovation, improves the effectiveness of the organization and its overall image. Literature dealing with the principles of quality management and operational performance proves that one of the most powerful factors driving an organization's competitive advantage and effectiveness is leadership adoption (Samson & Terziovski, 1999). Many companies and organizations applying effective leadership, have improved the quality of their products and services. For example in the health sector, national leadership frameworks have been developed in countries such as in the UK the NHS Institute for Innovation and Improvement, 2011 , in USA the National Center for Health care Leadership, 2012, in Canada the Canadian Health Leadership Network, 2015 and in Australia the Health Workforce Australia, 2013. They monitored spectacular results in quality of health services, cost reduction

and customer satisfaction. Applying leadership to these organizations provided an inspiring vision and strategic direction for partnerships, innovation, organizational learning, systematic thinking, integration, dialogue and transformational improvements that lead in mindsets changing and sustain high service performance and survival (Shannon & Sebastian, 2018).

Moreover the specific study confirmed the Research Question if there is a relationship between the key factor Deming on Education and Training and the key performance indicators of Greek Public Administration (goals, human resource, suppliers and improvements). In more detail Spearman correlation showed that regarding the factor “Deming on Education and Training”, there was a strong and positive relationship with the performance indicator of the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department”. That means that the more the key factor “Deming on Education and Training” increases, the more the satisfaction level of “the administrative executives regarding the improvements they have applied on the operational level of their department” increases. This finding is consistent with previous studies on this field and shows that educated and well-trained human resources contributes significantly to the effective implementation of improvements in organizations. As Drucker (1993) points out, knowledge employees have become the most essential asset in the knowledge-based society. Thus, qualified employees with emotional and intellectual competencies are a crucial component to effectively accomplish organizational improvements and lead to organizational success. The continued effective implementation of these improvements has important implications for maintaining the competitive advantage of organizations in a global economy. Through education and training, individual performance, skills and behaviors are improved and improvements can be implemented with greater awareness and success. Related business research has shown that education and training, through effective improvements, is closely linked to the organization’s performance in terms of employment growth and profitability and consequently to the organization’s viability (Huang, 2001).

Furthermore the specific study confirmed the Research Question if there is a relationship between the key factor “Deming on Suppliers” and the key performance indicators of Greek Public Administration (goals, human resource, suppliers, and improvements).

Precisely Spearman correlation indicated that the key factor “Deming on Suppliers” is significantly associated with a strong and positive relation with the satisfaction level of “the administrative executives regarding the performance of the human resources of their department”. That means that the more the key factor “Deming on Suppliers” increases, the more the satisfaction level of “the administrative executives regarding the performance of the human resources of their department” increases. Related literature is in line with these findings as they prove that organizations cooperating with suppliers can reduce the complexity of their environments and meet the needs of their customers, by providing better quality services at low cost (Habidin, Mohd Yusof, & Mohd Fuzi, 2016). Laframboise and Reyes (2005) argued that the alignment of suppliers with quality management practices has positive effect in human resources performance, improvement in their relationship, better operating procedures especially regarding administrative and financial aspects, effectiveness of the supply chain, better information flow and improved overall picture of the organization. Many organizations, such as Toyota in the automotive sector, and in other areas such as healthcare, education, banking and Public Administration have developed long-term relationships with their suppliers, on a basis of mutual understanding of needs and a clear vision for the employees on both sides, in a win-win state. Studies have shown that when people cooperate they feel that have a common purpose, and then they share information and resources, communicate and interact effectively, help and support one another, and develop an open and effective dialogue. Therefore it is established an environment that leads the human resources of organizations to show high levels of performance (Wong, 2002).

Finally the specific study did not confirm the Research Question if there is a relationship between the key factor “Deming on Systems” and the key performance indicators of Greek Public Administration (goals, human resource, suppliers, and improvements). More specifically Spearman correlation showed that no significant relationship was found between the key factor “Deming on Systems” and all the key performance indicators (goals, human resource, suppliers, improvements) of the questionnaire, that measure the performance of Public Administration organizations through the satisfaction level of the administrative executives of Public Administration. However, the findings of the present study did not reveal that the factor “Deming on Systems” had a significant and positive relationship with the key performance indicators (see Table 4.6). This

finding is contradicting to the literature, which supports that the improvement of the quality of Systems in an organization is related to the improvement of performance indicators (Opeyemi, Isaiah, & Olugbenga, 2019), and shows that, the improvement of the quality of Systems of the organizations of Greek Public Administration is not related to their performance indicators. A possible reason that this may happen is because, since the post-war era in Greece, the key problems of Greek Public Administration were characterizing the manner of the organizational and systemic structure of the administrative mechanism that corresponded to chronic weaknesses of administrative structures, which had already been identified and attempted to be addressed through modernization and reform efforts, without significant improvements, due to the generally low capacity and quality of the administrative mechanism (Spanou, Ioannou, Lampropoulou, Balla, & Economou, 2018).

IMPLICATIONS

A quality management survey instrument emerged from the current study, with established validity and reliability, which could be used in any organization of public sector to evaluate the quantity and quality of the practices, methods and tools of quality management activities which are occurring and the effectiveness of the implementation of those practices, methods and tools that have been developed. Also the findings presented and discussed above have many implications for the development and use of Deming Management Method in Greek Public Administration. As mentioned above, the Deming Management Method has been applied to many organizations, profit and non-profit, worldwide with excellent results in their performance, in creating a competitive advantage and in their viability. It is of paramount importance, especially nowadays that the global financial crisis has affected the Greek economy and reality, that the practices and tactics of Deming's Management Method have to be adopted by Public Administration executives in order to transform the Greek public sector for the benefit of the citizens. Managers of departments and directorates shall focus particularly on developing a transformational culture based on the key factors of Deming Management Method which are: (a) Deming on People, (b) Deming on Leadership, (c) Deming on Education & Training, (d) Deming on Suppliers and (e) Deming on Systems. The identification of these factors by the administrative executives and their implementation will contribute

to the structural changes, needed by the Greek public sector to operate systematically at the lowest possible cost to the maximum satisfaction of citizens.

As, according to Deming Management Method, the responsibility for transformation lies primarily with senior management, regarding the factor “Deming on People”, managers should take the following actions:

1. Informing all human resources that the ultimate goal of the organization is to improve the quality of services provided
2. Ensuring a quality work environment for human resources
3. Ensuring the necessary resources, tools and ethical support of staff, so that the levels of service quality are ambitious and feasible at the same time
4. Providing human resources with appropriate methods and processes to effectively achieve its objectives
5. Removing the barriers to the organization's processes that prevent human resources from performing their job effectively
6. Providing accurate guidance and support to the workforce to perform its job effectively
7. Ensuring for the human resources an environment of trust and free expression without criticism, making them feel valuable
8. Encouraging open and honest communication with the human resources of the organization and eliminating fear at the same time
9. Encourage employees to participate in the decision-making process
10. Avoiding the use of slogans and human resources prompts to eliminate errors / omissions / overlaps and defective services
11. Facilitate interaction between departments
12. Adopt a culture of administrative effectiveness where all human beings feel proud of their work
13. Encourage cooperation and consensus to effectively manage conflict and reduce competitive relationships
14. Evaluating the human resources of the organization without benchmarking and classifying them according to their performance but providing constructive guidance and developing an action plan for improvement
15. Empowering, recognizing and rewarding human resources

16. Encouraging human resources to be constantly trained to prepare for future changes and challenges

17. Encouraging human resources to adopt quality improvement strategies

Also regarding the key factor “Deming on leadership” the administrative executives need to adopt and apply the principles and values of Deming Management Method for leadership such as:

1. Developing and implementing a Quality Vision and Strategy in their organization
2. Establishing quality culture throughout the organization
3. Developing long-term quality-based planning in their organization, always aiming to become better and presenting it to all employees
4. Investing resources in research and education
5. Committed to continually improving the quality of services provided, prioritizing the needs of the recipients of your services
6. Preparing for future challenges foreseen
7. Integrating quality control techniques into each stage of the design of the service provided and delivered
8. Looking for the causes that caused the errors found
9. Taking steps to eliminate the causes of errors / omissions / overlaps in service provision
10. Taking into account customer requirements in the process of developing or creating a service
11. Constantly improving the systems and processes

Furthermore, as the results of the specific study showed that the practices of the key factor “Deming on Education and Training” were applied in little extent, their implementation in a greater extend will positively affect the effectiveness of their organization. More specifically administrative executives should:

1. Provide education and training to human resources to continually improve their work
2. Provide training to the human resources of the organization, supervisors and subordinates, in the use of statistical methods for decision making

3. Provide training to leadership to be aware of the policies, the strategies and the way the organization works
4. Provide training to the organization's human resources, supervisors and subordinates, in Quality Management
5. Establish quality improvement teams to continually improve the organization's processes
6. Use cross-cutting teams to build interaction and reduce competitive relationships between departments
7. Improve the skills and abilities of employees through training programs
8. Provide training to leadership in order to help adapt human resources to change and continually improve the administration system

In addition, as the factor “Deming on Suppliers” is applied to little extent in organizations of Greek Public Administration, the implementation of a supplier management strategy in accordance with the Deming Management Method would have a positive effect on the organizations by delivering better quality services to the public sector in lower cost and long-term strategic benefits. More specifically the administrative executives should implement the following:

1. Use statistical methods of quality control to prove that processes work successfully
2. Develop long-term partnerships with suppliers to participate in the process of developing or creating a service
3. Choose suppliers, relying primarily on quality combined with the price of the product or service.
4. Require from suppliers to devote time to improving the quality of their own products and services.
5. Use quality statistics to ensure that suppliers meet quality standards.

Finally, as the factor "Deming on systems" is applied to little extent in Greek Public Administration, the implementation of practices and policies that will help to effectively manage the systems and processes of Public Administration organizations and make a significant contribution to their structural change and transformation. In particular, managers of department and directorates should adopt a culture of transformation to:

1. Deal with errors / omissions / complaints in the provision of services with the belief that they are at their own risk, and not exclusively of employees, trying to find an effective way of managing them
2. Be convinced that they are responsible for removing pathogens caused by the system (i.e. the causes of errors / omissions / complaints)
3. Focus on quality and not just focus on achieving numerical goals
4. Evaluate the organization's operating procedures by focusing more on them (and not the people who implement them)

Recommendations for Further Study

The literature in the field of quality management in Public Administration is very limited. There appears to be an ever increasing interest in this area, and further studies could prove to be beneficial. Based on the findings of this study, the following recommendations are offered for future research:

1. Follow-up studies should be carried out in the same sample over three to five years, to investigate possible changes in the implementation of Deming Management Method in Greek Public Administration.
2. Research should be done to the same population (Greek Public Administration executives) to assess qualitatively the extent of quality management. Qualitative case studies rely upon data obtained from interviews and observations, which would address administrative executives of supreme leadership, the type of leadership behavior which appears to be needed to ensure the transformation of the organizations, the style of management used in human resources, the educational and training strategy, the suppliers cooperation policy, the type of data used in systems and processes management, the methods used to obtain the data and the resistance that is encountered in gaining commitment to the implementation of Deming Management Method.
3. Replication of the particular research should be done, using different measures of performance. For example, a future research may employ the objective way of measuring organizations' performance, which is based on the comparisons of the absolute measures of performance (balance sheets, profit, data that record customer's satisfaction etc.).

4. Comparative studies should be conducted among Greek and European Public Administration. These comparisons would be useful in order to find out similarities and differences in quality management in Public Administration.
5. Finally, future research should be designed to establish the validity and reliability of a quality management survey instrument which could be used in any organization of public sector to evaluate the quantity and quality of the practices, methods and tools of quality management activities which are occurring and the effectiveness of the implementation of those practices, methods and tools that have been developed.

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APPENDICES

APPENDIX A:

Deming Management Method Questionnaire

I. Informations Regarding Deming's Theory of Quality

For every question, fill with X (only one) the boxes in the three adjacent columns		Measurement scale					PRESENT To what extent do you currently apply the following statements or suggestions to your organization?					VALUE To what extent does this approach give value to your organization?					FUTURE To what extent do you have the intention to apply the following statements or suggestions to your organization?				
		1 Never	2 To little	3 To some extent	4 To great	5 Always	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Constancy of Purpose for the Improvement of Product and Service							1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1.	You develop long-term quality-based planning in your organization with the goal of always being better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Do you invest resources in research and education?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	You constantly improving the processes of your organization's products and services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	You are preparing for future challenges that you have foreseen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adopt the New Philosophy							1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5.	You develop in your organization Vision and Strategy for quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	You apply in your organization Vision and Strategy for quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	You have as priority the needs of the recipients of your services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	You establish quality culture throughout the organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Leadership is committed to continually improving the quality of the provided services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cease Dependence on Mass Inspection							1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
10.	You incorporate quality control techniques into each stage of the design of the services you provide.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	You incorporate quality control techniques at each stage of delivering your services to the recipients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Are you looking for the causes that caused the errors you may find?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	You take steps to eliminate the causes of errors / failures/ overlaps in service provision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	You use statistical methods of quality control to prove that the process is working successfully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For every question, fill with X (only one) the boxes in the three adjacent columns

Measurement scale

1	2	3	4	5
Never	To little	To some extent	To great	Always

		PRESENT To what extent do you currently apply the following statements or suggestions to your organization?					VALUE To what extent does this approach give value to your organization?					FUTURE To what extent do you have the intention to apply the following statements or suggestions to your organization?				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
End the practice of awarding business on the basis of price tag alone																
15.	Your suppliers are involved in the process of developing / creating a service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	You develop long-term partnerships with your suppliers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	You choose your suppliers, relying primarily on quality combined with the price of the products or services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	You require from your suppliers to devote time to improve the quality of their own products and services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	You choose your suppliers, relying only on the price of the products or services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	You use statistics, regarding quality, to ensure that your suppliers meet quality standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improve the System of Production and Service																
21.	Customer requirements are taken into account in the process of developing / creating a service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	You are constantly improving your systems and processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	You provide education and training to human resources to continually improve their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institute a Vigorous Program of Education and Retraining																
24.	The human resources of the organization (managers and subordinates) are trained in the use of statistical methods for decision making.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	Managers are trained to be well aware of the policies, strategies and the way that the organization functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.	The organization's human resources (managers and subordinates) are trained in Quality Management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adobe and Institute Leadership																
27.	You provide guidance and support to human resources so that it can perform its job effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.	You eliminate the barriers to the organization's processes and prevent human resources from performing their job effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.	You ensure an environment of trust and freedom of expression without criticism for human resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.	You encourage employees to participate in the decision-making process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For every question, fill with X (only one) the boxes in the three adjacent columns

Measurement scale

1	2	3	4	5
Never	To little	To some extent	To great	Always

		PRESENT To what extent do you currently apply the following statements or suggestions to your organization?	VALUE To what extent does this approach give value to your organization?	FUTURE To what extent do you have the intention to apply the following statements or suggestions to your organization?
		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Drive out Fear				
31.	You encourage open and honest communication with the human resources of the organization while eliminating fear.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
32.	You inform all human resources that the ultimate goal of the organization is to improve the quality of services provided.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
33.	You make human resources feel valuable?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
34.	You establish quality improvement teams to continually improve the organization's processes.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
35.	You believe that only employees are held liable for errors / omissions / complaints occurring in service provision.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Break down Barriers Between Departments				
36.	You ensure that each department interacts effectively with the other departments.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
37.	You use inter-departmental teams to build interaction and reduce competitive relationships between departments and employees.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
38.	You emphasize on cooperation and consensus, with the aim of managing conflicts effectively and reducing competitive relationships within the organization.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Eliminate Slogans, Exhortations, and Targets for the Work Force				
39.	The leadership of the organization is responsible for removing the pathogens due to the system (i.e. the causes of errors / omissions, defective products).	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
40.	Organization's employees are responsible for removing pathogens caused by the system. More specifically, the reasons that cause mistakes/omissions, defective products.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
41.	The leadership of the organization provides human resources with appropriate methods / processes to effectively achieve its goals.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
42.	You use slogans and human resources prompts to eliminate errors/ omissions / overlaps and defects.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Eliminate Numerical Quotas				
43.	You focus solely on achieving numerical goals without emphasizing on quality.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
44.	You ensure the necessary resources and ethical support, so that the levels of quality services are ambitious and at the same time feasible.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
45.	You evaluate the organization's operating procedures, with a greater emphasis on them (and not the people who implement them).	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

For every question, fill with X (only one) the boxes in the three adjacent columns		PRESENT To what extent do you currently apply the following statements or suggestions to your organization?					VALUE To what extent does this approach give value to your organization?					FUTURE To what extent do you have the intention to apply the following statements or suggestions to your organization?				
		Measurement scale														
		1	2	3	4	5										
		Never	To little	To some extent	To great	Always										
Remove Barriers That Rob People of Their Right to Pride of Workmanship		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
46.	You cultivate a culture of administrative efficiency where all human beings feel proud of their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47.	You evaluate people of your organization without classifying them according to their performance and without comparing them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48.	Do you ensure a quality work environment for human resources of your organization?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49.	You Lead by empowering, recognizing and rewarding human resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institute a Vigorous Program of Education and Retraining		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
50.	You improve the skills and skills of employees through training programs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51.	You encourage human resources to continuously being trained, to prepare for future changes and challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52.	You are trained to help human resources adapt to changes and continually improve the organization's management system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Take Action to Accomplish the Transformation		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
53.	Quality improvement is in line with the organization's Vision and Strategy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54.	You use an effective action plan to deliver quality upgrades to your organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55.	You encourage people to adopt quality improvement strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance Measurment		1	2	3	4	5										
56.	How satisfied are you, as head of department, from the achieve-ment of the goals of your department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
57.	How satisfied are you, as head of department, from the performance of the human resources of your department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
58.	How satisfied are you, as head of department, from the collaboration with suppliers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
59.	How satisfied are you, as head of department, from the improvements have applied to the operation of the department /directorate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										

II. Demographic characteristics

Fill X or text where required

60. Gender

Male

Female

61. Age

You were born during

1945 and before

1946-1964

1965-1976

1977-1995

1996 and after

62. Are you a graduate of the National School of Public Administration?

Yes

No

63. What is your highest level of education?

a. Graduate

b. Postgraduate studies (i.e. IEK)

c. University Graduate

d. Graduate of Technical Educational Institution

e. Master

j. Doctorate (PhD)

k. Other _____

64. Depending on your choice in the previous question, choose the direction of your degree.

a. Administrative & Financial Science / Business Administration

b. Other specialization

65. What is the name of the organization you work for? _____

66. Your Position is

a. Head of Directorate

b. Head of Department

c. Other Position

67. How many years do you work as a Head of Department or Directorate _____

68. Years of employment in the private sector: _____

If you would like to be informed about the survey results, please fill in your e-mail: _____

I. ΠΛΗΡΟΦΟΡΙΕΣ ΣΧΕΤΙΚΑ ΜΕ ΤΗ ΘΕΩΡΙΑ ΤΟΥ DEMING

Συμπληρώστε Χ στα κουτάκια στις στήλες που βρίσκονται δεξιά		Κλίμακα Μέτρησης					ΠΑΡΟΝ Σε ποιο βαθμό εφαρμόζετε αυτή τη στιγμή στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?	ΑΞΙΑ Σε ποιο βαθμό προσδίδει αξία στον οργανισμό σας αυτή η προσέγγιση?	ΜΕΛΛΟΝ Σε ποιο βαθμό σχεδιάζετε να εφαρμόσετε στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?							
		1 Καθόλου	2 Σε μικρό	3 Σε μέτριο βαθμό	4 Σε μεγάλο	5 Απόλυτα										
Δημιουργώντας σταθερότητα σκοπού		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1.	Αναπτύσσετε μακροπρόθεσμο σχεδιασμό βασισμένο στην ποιότητα έχοντας πάντα ως στόχο να γίνεστε καλύτεροι.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Επενδύετε πόρους σε έρευνα και εκπαίδευση.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Βελτιώνετε συνεχώς τις διαδικασίες των προϊόντων και των υπηρεσιών του οργανισμού σας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Προετοιμάζετε για μελλοντικές προκλήσεις που έχετε διαβλέψει.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Υιοθετώντας τη νέα φιλοσοφία		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5.	Αναπτύσσετε στον οργανισμό σας Όραμα και Στρατηγική για την ποιότητα.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Εφαρμόζετε στον οργανισμό σας Όραμα και Στρατηγική για την ποιότητα.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Έχετε ως προτεραιότητα τις ανάγκες των αποδεκτών των υπηρεσιών σας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Εγκαθιδρύετε κουλτούρα ποιότητας σε όλο τον οργανισμό.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Η ηγεσία του οργανισμού δεσμεύεται να εφαρμόσει συνεχή βελτίωση της ποιότητας των παρεχομένων υπηρεσιών.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Σταματώντας την εξάρτηση από τη μαζική επιθεώρηση		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
10.	Ενσωματώνετε τεχνικές ποιοτικού ελέγχου σε κάθε στάδιο σχεδιασμού της υπηρεσίας ή των υπηρεσιών που παρέχετε.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Ενσωματώνετε τεχνικές ποιοτικού ελέγχου σε κάθε στάδιο παροχής των υπηρεσιών στους αποδέκτες.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Αναζητάτε τα αίτια που προκάλεσαν τα λάθη που τυχόν εντοπίζετε.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Προβαίνετε σε ενέργειες για την εξάλειψη των αιτιών που προκάλεσαν λάθη/παραλείψεις/επικαλύψεις κατά την παροχή της υπηρεσίας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Χρησιμοποιείτε στατιστικές μεθόδους ποιοτικού ελέγχου για να αποδειχθεί ότι η διαδικασία λειτουργεί με επιτυχία.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Συμπληρώστε Χ στα κουτάκια		Κλίμακα Μέτρησης					ΠΑΡΟΝ Σε ποιο βαθμό εφαρμόζετε αυτή τη στιγμή στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?					ΑΞΙΑ Σε ποιο βαθμό προσδίδει αξία στον οργανισμό σας αυτή η προσέγγιση?					ΜΕΛΛΟΝ Σε ποιο βαθμό σχεδιάζετε να εφαρμόσετε στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?				
		1 Καθόλου	2 Σε μικρό βαθμό	3 Σε μέτριο βαθμό	4 Σε μεγάλο βαθμό	5 Απόλυτα	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	Σταματώντας την πρακτική της επιλογής των προμηθευτών στηριζόμενοι μόνο στην χαμηλότερη τιμή																				
15.	Οι προμηθευτές σας συμμετέχουν στη διαδικασία ανάπτυξης/δημιουργίας μιας υπηρεσίας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	Αναπτύσσετε μακροχρόνιες σχέσεις συνεργασίας με τους προμηθευτές σας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Επιλέγετε τους προμηθευτές σας, στηριζόμενοι πρωτίστως στην ποιότητα σε συνδυασμό με την τιμή των προϊόντων ή υπηρεσιών.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	Ενθαρρύνετε τους προμηθευτές σας να αφιερώνουν χρόνο στη βελτίωση της ποιότητας των δικών τους προϊόντων και υπηρεσιών.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	Επιλέγετε τους προμηθευτές σας, στηριζόμενοι μόνο στην τιμή των προϊόντων ή υπηρεσιών.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	Χρησιμοποιείτε τα στατιστικά στοιχεία σχετικά με την ποιότητα, για να διασφαλίσετε ότι οι προμηθευτές σας ανταποκρίνονται στα πρότυπα ποιότητας που έχετε θέσει.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Συνεχής βελτίωση του συστήματος παραγωγής και υπηρεσιών																				
21.	Οι απαιτήσεις των πελατών λαμβάνονται υπόψιν κατά τη διαδικασία ανάπτυξης/δημιουργίας μιας υπηρεσίας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	Βελτιώνετε συνεχώς τα συστήματα και τις διαδικασίες σας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	Παρέχετε εκπαίδευση και κατάρτιση στο ανθρώπινο δυναμικό ώστε να βελτιώνει συνεχώς την εργασία του.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Κατάρτιση στην εργασία																				
24.	Το ανθρώπινο δυναμικό του οργανισμού (προϊστάμενοι και υφιστάμενοι) εκπαιδεύονται στη χρήση στατιστικών μεθόδων για τη λήψη αποφάσεων.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	Οι προϊστάμενοι εκπαιδεύονται ώστε να γνωρίζουν καλά τις πολιτικές, τις στρατηγικές και τον τρόπο λειτουργίας του οργανισμού που εργάζονται, (δηλαδή από τις εισροές έως τις εκροές και την αλληλεπίδραση μεταξύ όλων των μερών του).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.	Το ανθρώπινο δυναμικό του οργανισμού (προϊστάμενοι και υφιστάμενοι) εκπαιδεύεται σε θέματα Διαχείρισης Ποιότητας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Θέσπιση Ηγεσίας																				
27.	Παρέχετε οδηγίες και υποστήριξη στο ανθρώπινο δυναμικό έτσι ώστε να εκτελεί την εργασία του αποτελεσματικά.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.	Εξαλείψετε τα εμπόδια που οφείλονται στις διαδικασίες του οργανισμού και εμποδίζουν το ανθρώπινο δυναμικό να εκτελεί την εργασία του αποτελεσματικά.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.	Εξασφαλίζετε για το ανθρώπινο δυναμικό ένα περιβάλλον εμπιστοσύνης και ελεύθερης έκφρασης χωρίς επικριτική διάθεση.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.	Ενθαρρύνετε τους εργαζόμενους να συμμετέχουν στη διαδικασία λήψης αποφάσεων.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Συμπληρώστε Χ στα κουτάκια Κλίμακα Μέτρησης		ΠΑΡΟΝ Σε ποιο βαθμό εφαρμόζετε αυτή τη στιγμή στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?					ΑΞΙΑ Σε ποιο βαθμό προσδίδει αξία στον οργανισμό σας αυτή η προσέγγιση?					ΜΕΛΛΟΝ Σε ποιο βαθμό σχεδιάζετε να εφαρμόσετε στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Απομάκρυνση του φόβου																
31.	Ενθαρρύνετε την ανοιχτή και ειλικρινή επικοινωνία με το ανθρώπινο δυναμικό του οργανισμού εξαλείφοντας ταυτόχρονα το φοβο.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32.	Ενημερώνετε όλο το ανθρώπινο δυναμικό ότι απώτερος στόχος του οργανισμού είναι να επιτευχθεί η βελτίωση της ποιότητας των παρεχόμενων υπηρεσιών.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.	Κάνετε το ανθρώπινο δυναμικό να αισθάνεται πολύτιμο.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.	Συγκροτείτε ομάδες βελτίωσης της ποιότητας για τη συνεχή βελτίωση των διαδικασιών του οργανισμού.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.	Θεωρείτε υπεύθυνους τους εργαζόμενους όταν συμβαίνουν λάθη/παραλείψεις/παράπονα στην παροχή υπηρεσιών.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Εξαλειψη εμποδίων μεταξύ των τμημάτων																
36.	Διασφαλίζετε ότι κάθε τμήμα ή διεύθυνση αλληλεπιδρά με τα άλλα τμήματα ή διευθύνσεις.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37.	Χρησιμοποιείτε διατμηματικές ομάδες εργασίας για την οικοδόμηση της αλληλεπίδρασης και τη μείωση των ανταγωνιστικών σχέσεων τόσο μεταξύ των τμημάτων, όσο και μεταξύ των εργαζομένων.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38.	Δίνετε έμφαση στη συνεργασία και τη συναίνεση, με σκοπό την αποτελεσματική διαχείριση των συγκρούσεων και τη μείωση των ανταγωνιστικών σχέσεων στον οργανισμό.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Μείωση των σλογκαν και των στόχων																
39.	Η ηγεσία του οργανισμού είναι υπεύθυνη να απομακρύνει τις παθογένειες που οφείλονται στο σύστημα (δηλαδή τις αιτίες που προκαλούν λάθη/παραλείψεις, ελλωτωματικά προϊόντα).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40.	Οι υπάλληλοι του οργανισμού είναι υπεύθυνοι να απομακρύνουν τις παθογένειες που οφείλονται στο σύστημα (δηλαδή τις αιτίες που προκαλούν λάθη/παραλείψεις, ελλωτωματικά προϊόντα).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41.	Η ηγεσία του οργανισμού παρέχει στο ανθρώπινο δυναμικό τις κατάλληλες μεθόδους/διαδικασίες με σκοπό την αποτελεσματική επίτευξη των στόχων του.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42.	Χρησιμοποιείτε συνθήματα (σλόγκαν) και προτροπές προς το ανθρώπινο δυναμικό για εξαλειψη λαθών/παραλείψεων/επικαλύψεων και ελλωτωματικών προϊόντων.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Μείωση των αριθμητικών στόχων																
43.	Εστιάζετε μόνο στην επίτευξη αριθμητικών στόχων χωρίς να δίνετε έμφαση στην ποιότητα.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.	Εξασφαλίζετε τους απαραίτητους πόρους και την ηθική υποστήριξη, έτσι ώστε τα επίπεδα παροχής ποιοτικών υπηρεσιών να είναι φιλόδοξα και ταυτόχρονα εφικτά.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45.	Αξιολογείτε τις διαδικασίες λειτουργίας του οργανισμού, δίνοντας έμφαση σε αυτές (και όχι τους ανθρώπους που εφαρμόζουν τις διαδικασίες).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Συμπληρώστε Χ στα κουτάκια		Κλίμακα Μέτρησης					ΠΑΡΟΝ Σε ποιο βαθμό εφαρμόζετε αυτή τη στιγμή στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?					ΑΞΙΑ Σε ποιο βαθμό προσδίδει αξία στον οργανισμό σας αυτή η προσέγγιση?					ΜΕΛΛΟΝ Σε ποιο βαθμό σχεδιάζετε να εφαρμόσετε στον οργανισμό σας τις παρακάτω θέσεις ή προτάσεις?				
		1	2	3	4	5															
		Καθόλου	Σε μικρό βαθμό	Σε μέτριο βαθμό	Σε μεγάλο βαθμό	Απόλυτα															
		Μείωση των παραγόντων που εμποδίζουν την ικανοποίηση από την εργασία					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
46.	Καλλιεργείτε μια κουλτούρα διοικητικής αποτελεσματικότητας, όπου όλο το ανθρώπινο δυναμικό να αισθάνεται υπερήφανο για τη δουλειά του.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47.	Προβαίνετε σε αξιολόγηση του ανθρώπινου δυναμικού χωρίς να τους ταξινομείτε σύμφωνα με την απόδοσή τους και χωρίς να τους συγκρίνετε μεταξύ τους.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48.	Εξασφαλίζετε ποιοτικό εργασιακό περιβάλλον για το ανθρώπινο δυναμικό σας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49.	Ηγείστε μέσω της ενδυνάμωσης, της αναγνώρισης και της επιβράβευσης του ανθρώπινου δυναμικού.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Συνεχής εκπαίδευση και αυτοβελτίωση					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
50.	Βελτιώνετε τις ικανότητες και δεξιότητες των εργαζομένων μέσω εκπαιδευτικών προγραμμάτων.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51.	Ενθαρρύνετε το ανθρώπινο δυναμικό να εκπαιδευτεί συνεχώς, ώστε να προετοιμαστεί για τις μελλοντικές αλλαγές και προκλήσεις.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52.	Εκπαιδεύετε έτσι ώστε να συμβάλετε στην προσαρμογή του ανθρώπινου δυναμικού σας στις αλλαγές και στη συνεχή βελτίωση του συστήματος διοίκησης του οργανισμού.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Ενέργειες για ολοκλήρωση του μετασχηματισμού					1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
53.	Η βελτίωσης ποιότητας ευθυγραμμίζεται με το Όραμα και τη Στρατηγική του οργανισμού.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54.	Χρησιμοποιείτε ένα αποτελεσματικό σχέδιο δράσης για την υλοποίηση της αναβάθμισης της ποιότητας στον οργανισμό σας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55.	Ενθαρρύνετε το ανθρώπινο δυναμικό να υιοθετήσει τις στρατηγικές βελτίωσης της ποιότητας.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Μέτρηση της Αποδοτικότητας					1	2	3	4	5										
56.	Πόσο ικανοποιημένος/η είστε από την επίτευξη των στόχων σας ως Προϊστάμενος/η της Υπηρεσίας σας;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
57.	Πόσο ικανοποιημένος /η είστε από την απόδοση του ανθρώπινου δυναμικού της Υπηρεσίας σας;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
58.	Πόσο ικανοποιημένος/η είστε από τη συνεργασία σας με τους προμηθευτές σας;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
59.	Πόσο ικανοποιημένος/η είστε από τις βελτιώσεις που εφαρμόσατε στη λειτουργία της Υπηρεσίας σας;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															

II. ΔΗΜΟΓΡΑΦΙΚΑ ΣΤΟΙΧΕΙΑ

Συμπληρώστε X ή κείμενο όπου απαιτείται

60. Φύλο
Άντρας Γυναίκα
61. Ηλικία
Έχετε γεννηθεί μεταξύ των ετών
1945 και πριν 1946-1964 1965-1976 1977-1995 1996 και μετά
62. Είστε απόφοιτος της Εθνικής Σχολής Δημόσιας Διοίκησης?
ΝΑΙ ΟΧΙ

Συμπληρώστε X ή κείμενο όπου απαιτείται

63. Ποια είναι η υψηλότερη βαθμίδα εκπαίδευσης που κατέχετε?
α. Απόφοιτος Λυκείου
β. Μεταλυκειακές σπουδές (π.χ. ΙΕΚ)
γ. Απόφοιτος ΑΕΙ
δ. Απόφοιτος ΑΤΕΙ
ε. Μεταπτυχιακό
στ. Κάτοχος Διδακτορικού
ζ. Άλλο _____
64. Σχετικά με την επιλογή σας στην προηγούμενη ερώτηση, επιλέξτε την κατεύθυνση του τίτλου σπουδών σας.
α. Διοικητική & Οικονομική Επιστήμη/Διοίκηση Επιχειρήσεων
β. Άλλη ειδίκευση
65. Ποια είναι η επωνυμία του φορέα που εργάζεστε; _____
66. Κατέχετε θέση:
α. Προϊσταμένου Διεύθυνσης
β. Προϊσταμένου Τμήματος
γ. Άλλο _____
67. Έτη υπηρεσίας σε θέση Προϊσταμένου Τμήματος ή Διεύθυνσης: _____
68. Έτη απασχόλησης στον ιδιωτικό τομέα: _____

Εάν επιθυμείτε να ενημερωθείτε για τα αποτελέσματα της έρευνας, παρακαλώ συμπληρώστε το e-mail σας: _____

Spearman's rho		Πόσο ικανοποιημένος/ή είστε από την επίτευξη των στόχων σας ως Προϊστάμενος/ή της Υπηρεσίας σας;	Πόσο ικανοποιημένος/ή είστε από την απόδοση του ανθρώπινου δυναμικού της Υπηρεσίας σας;	Πόσο ικανοποιημένος/ή είστε από τη συνεργασία με τους προμηθευτές σας;	Πόσο ικανοποιημένος/ή είστε από τη βελτίωση της ποιότητας των υπηρεσιών που παρέχετε;	Αναπτύσσετε τον οργανισμό σας μακροπρόθεσμα σχεδιάζοντας βασισμένο στην ποιότητα πάντα ως στόχο να γίνετε καλύτεροι.	Επενδύετε πόρους σε έρευνα και εκπαίδευση.	Βελτιώνετε συνεχώς τις διαδικασίες των υπηρεσιών που παρέχετε.	Προσέχετε για μελλοντικές προκλήσεις που έχετε διαβλέψει.	Αναπτύσσετε τον οργανισμό σας Οραμα και Στρατηγική ή για την ποιότητα.	Εφαρμόζετε στον οργανισμό σας Οραμα και Στρατηγική ή για την ποιότητα.	Έχετε ως προτεραιότητα την ανάπτυξη των υπηρεσιών σας.	Εγκαθιδρύετε κουλτούρα ποιότητας σε όλο τον οργανισμό.	Η ηγεσία του οργανισμού δρομολογεί και ενοικιαστική ποιότητα ή παρεχομένων υπηρεσιών.	Ενοσωμάτωτε τεχνικές ποιοτικού ελέγχου σε κάθε στάδιο σχεδιασμού της υπηρεσίας που παρέχετε.	Ενοσωμάτωτε τεχνικές ποιοτικού ελέγχου σε κάθε στάδιο παραγωγής των υπηρεσιών που παρέχετε.	Αναζητάτε τα πάντα που προκύπτουν από την εξέλιξη των απαντήσεων που προκάλεσαν λάθη/παρολιμψεις/επιπλοές κατά την παροχή της υπηρεσίας.	Προβείτε σε ενέργειες για την εξάλειψη των απαντήσεων που προκάλεσαν λάθη/παρολιμψεις/επιπλοές κατά την παροχή της υπηρεσίας.	Χρησιμοποιείτε στατιστικές μεθόδους ποιοτικού ελέγχου για να αποδειχθεί ότι η διαδικασία λειτουργεί με επιτυχία.	Οι προμηθευτές συμμετέχουν στη διαδικασία ανάπτυξης/δημιουργίας με τους προμηθευτές σας.	Αναπτύσσετε μακροχρόνιες σχέσεις συνεργασίας με τους προμηθευτές σας.	Επιλέγεται από προμήθευτές σας, υπηρεσίες, μηχανήματα, υλικά, προμήθειες ή προμήθειες.	Απαλείφεται από προμήθευτές σας, υπηρεσίες, μηχανήματα, υλικά, προμήθειες ή προμήθειες.	Επιλέγεται από προμήθευτές σας, υπηρεσίες, μηχανήματα, υλικά, προμήθειες ή προμήθειες.	Χρησιμοποιείτε στατιστικά στοιχεία σχετικά με την ποιότητα των προϊόντων.	Οι απαντήσεις πελάτων για ικανοποίηση των υπηρεσιών σας.	Βελτιώνετε συνεχώς τις διαδικασίες σας.	Παρέχετε εκπαίδευση και κατάρτιση στο ανθρώπινο δυναμικό ώστε να βελτιώνει συνεχώς την εργασία του.	
Correlation Coefficient	Sig. (2-tailed)	1,000	0,451	0,525	0,444	0,057	-0,055	-0,062	-0,010	0,063	0,079	-0,048	0,063	0,061	0,053	0,065	-0,083	-0,073	0,000	-0,037	0,014	0,054	0,114	-0,071	0,056	-0,017	0,083	-0,035	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,451	1,000	0,385	0,484	0,042	0,058	0,015	0,039	0,078	0,057	0,007	0,070	0,056	0,087	0,083	0,044	0,027	0,137	0,077	0,164	0,138	0,155	0,006	0,139	0,048	0,123	-0,031	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,525	0,385	1,000	0,224	-0,012	-0,046	-0,115	-0,056	0,030	0,050	-0,045	-0,019	-0,032	-0,018	-0,031	-0,097	-0,096	-0,018	-0,015	0,067	0,026	0,065	0,024	-0,059	-0,039	0,007	-0,072	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,444	0,484	0,224	1,000	0,023	-0,030	0,099	0,040	0,116	0,113	0,050	0,071	0,153	0,004	0,059	0,092	0,100	0,083	0,004	0,010	0,012	0,087	-0,134	0,119	0,010	0,119	0,074	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,057	0,042	-0,012	0,023	1,000	0,364	0,504	0,498	0,615	0,545	0,420	0,409	0,267	0,500	0,515	0,400	0,387	0,428	0,238	0,160	0,412	0,346	-0,057	0,278	0,318	0,357	0,240	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,055	0,058	-0,046	-0,030	0,364	1,000	0,414	0,321	0,430	0,443	0,246	0,318	0,377	0,315	0,313	0,310	0,206	0,361	0,211	0,108	0,269	0,200	0,002	0,210	0,282	0,264	0,226	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,062	0,015	-0,115	0,099	0,504	0,414	1,000	0,519	0,514	0,482	0,484	0,490	0,321	0,405	0,416	0,522	0,440	0,352	0,202	0,083	0,239	0,219	-0,017	0,232	0,388	0,460	0,377	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,010	0,039	-0,056	0,040	0,498	0,321	0,519	1,000	0,367	0,435	0,340	0,349	0,114	0,326	0,428	0,407	0,383	0,271	0,179	0,121	0,306	0,193	0,083	0,186	0,328	0,322	0,288	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,063	0,078	0,030	0,116	0,615	0,430	0,514	0,367	1,000	0,762	0,484	0,586	0,363	0,582	0,590	0,495	0,510	0,526	0,262	0,176	0,354	0,341	-0,129	0,344	0,413	0,387	0,384	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,079	0,057	0,050	0,113	0,545	0,443	0,482	0,435	0,762	1,000	0,470	0,554	0,428	0,587	0,612	0,506	0,464	0,465	0,239	0,129	0,321	0,330	-0,085	0,319	0,360	0,374	0,345	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,048	0,007	-0,045	0,050	0,420	0,246	0,484	0,340	0,484	0,470	1,000	0,458	0,284	0,398	0,347	0,501	0,527	0,255	0,305	0,056	0,329	0,257	-0,075	0,239	0,491	0,517	0,368	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,063	0,070	-0,019	0,071	0,409	0,318	0,490	0,349	0,586	0,552	0,458	1,000	0,505	0,472	0,484	0,328	0,409	0,358	0,289	0,158	0,325	0,329	-0,045	0,298	0,475	0,443	0,418	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,061	0,056	-0,032	0,153	0,267	0,377	0,321	0,114	0,363	0,428	0,284	0,505	1,000	0,321	0,340	0,267	0,324	0,374	0,230	0,117	0,227	0,310	0,209	0,218	0,294	0,466	0,285	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,053	0,087	-0,018	0,004	0,500	0,315	0,405	0,326	0,582	0,587	0,398	0,472	0,321	1,000	0,845	0,501	0,452	0,586	0,270	0,236	0,411	0,488	-0,012	0,363	0,385	0,396	0,323	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,065	0,083	-0,031	0,059	0,515	0,313	0,416	0,428	0,590	0,612	0,347	0,484	0,340	0,845	1,000	0,507	0,514	0,605	0,297	0,291	0,436	0,453	-0,014	0,422	0,406	0,391	0,392	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,083	0,044	-0,097	0,092	0,400	0,310	0,522	0,407	0,495	0,506	0,501	0,328	0,267	0,501	0,507	1,000	0,696	0,364	0,239	0,200	0,353	0,234	-0,182	0,277	0,422	0,432	0,428	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,073	0,027	-0,096	0,100	0,387	0,206	0,440	0,383	0,510	0,464	0,527	0,409	0,324	0,452	0,514	0,696	1,000	0,455	0,365	0,236	0,378	0,344	-0,063	0,373	0,467	0,506	0,429	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,000	0,137	-0,018	0,083	0,428	0,361	0,352	0,271	0,526	0,465	0,255	0,358	0,374	0,586	0,605	0,364	0,455	1,000	0,391	0,279	0,486	0,506	0,125	0,523	0,364	0,425	0,336	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334

Οι προμηθευτές σας συμμετέχουν στη διαδικασία ανάπτυξης/δημιουργίας μιας υπηρεσίας.	Correlation Coefficient Sig. (2-tailed) N	-0,037 0,501 334	0,077 0,163 334	-0,015 0,790 334	0,004 0,949 334	0,238 0,000 334	0,211 0,000 334	0,202 0,000 334	0,179 0,001 334	0,262 0,000 334	0,239 0,000 334	0,305 0,000 332	0,289 0,000 334	0,230 0,000 334	0,270 0,000 334	0,297 0,000 334	0,239 0,000 334	0,365 0,000 334	0,391 0,000 334	1,000 0,000 334	0,591 0,000 334	0,503 0,000 334	0,446 0,000 334	0,155 0,005 334	0,490 0,000 334	0,265 0,000 334	0,296 0,000 334	0,128 0,019 332
Αναπτύσσετε μακροχρόνιες σχέσεις συνεργασίας με τους προμηθευτές σας.	Correlation Coefficient Sig. (2-tailed) N	0,014 0,803 334	0,164 0,003 334	0,067 0,219 334	0,010 0,857 334	0,160 0,003 334	0,108 0,048 334	0,083 0,129 334	0,121 0,028 334	0,176 0,001 334	0,129 0,018 334	0,056 0,310 332	0,158 0,004 334	0,117 0,033 334	0,236 0,000 334	0,291 0,000 334	0,200 0,000 334	0,236 0,000 334	0,279 0,000 334	0,591 0,000 334	1,000 0,000 334	0,509 0,000 334	0,512 0,000 334	0,161 0,003 334	0,379 0,000 334	0,257 0,000 334	0,120 0,029 334	0,098 0,074 332
Επιλέγετε τους προμηθευτές σας, στηριζόμενοι πρωτίστως στην ποιότητα σε συνδυασμό με την τιμή των προϊόντων ή υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	0,054 0,327 334	0,138 0,011 334	0,026 0,638 334	0,012 0,822 334	0,412 0,000 334	0,269 0,000 334	0,239 0,000 334	0,306 0,000 334	0,354 0,000 334	0,321 0,000 334	0,329 0,000 332	0,325 0,000 334	0,227 0,000 334	0,411 0,000 334	0,436 0,000 334	0,353 0,000 334	0,378 0,000 334	0,486 0,000 334	0,503 0,000 334	0,509 0,000 334	1,000 0,000 334	0,697 0,000 334	-0,039 0,474 334	0,541 0,000 334	0,473 0,000 334	0,342 0,000 334	0,197 0,000 332
Απαιτείται από τους προμηθευτές σας να αφιερώνουν χρόνο στη βελτίωση της ποιότητας των δικών τους προϊόντων και υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	0,114 0,037 334	0,155 0,005 334	0,065 0,237 334	0,087 0,114 334	0,346 0,000 334	0,200 0,000 334	0,219 0,000 334	0,193 0,000 334	0,341 0,000 334	0,330 0,000 334	0,257 0,000 332	0,329 0,000 334	0,310 0,000 334	0,488 0,000 334	0,453 0,000 334	0,234 0,000 334	0,344 0,000 334	0,506 0,000 334	0,446 0,000 334	0,512 0,697 334	1,000 0,000 334	0,146 0,008 334	0,483 0,000 334	0,378 0,000 334	0,344 0,000 334	0,222 0,000 332	
Επιλέγετε τους προμηθευτές σας, στηριζόμενοι μόνο στην τιμή των προϊόντων ή υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	-0,071 0,195 334	0,006 0,916 334	0,024 0,659 334	-0,134 0,014 334	-0,057 0,302 334	0,002 0,965 334	-0,017 0,756 334	0,083 0,129 334	-0,129 0,018 334	-0,085 0,121 334	-0,075 0,174 332	-0,045 0,411 334	0,209 0,000 334	-0,012 0,833 334	-0,014 0,792 334	-0,182 0,001 334	-0,063 0,250 334	0,125 0,022 334	0,155 0,005 334	0,161 0,003 334	-0,039 0,474 334	0,146 0,008 334	1,000 0,006 334	0,151 0,006 334	-0,066 0,231 334	-0,001 0,989 334	0,087 0,115 332
Χρησιμοποιείτε τα στατιστικά στοιχεία σχετικά με την ποιότητα, για να διασφαλίσετε ότι οι προμηθευτές σας ανταποκρίνονται στα πρότυπα ποιότητας.	Correlation Coefficient Sig. (2-tailed) N	0,056 0,310 334	0,139 0,011 334	-0,059 0,281 334	0,119 0,029 334	0,278 0,000 334	0,210 0,000 334	0,232 0,000 334	0,186 0,001 334	0,344 0,000 334	0,319 0,000 334	0,239 0,000 332	0,298 0,000 334	0,218 0,000 334	0,363 0,000 334	0,422 0,000 334	0,277 0,000 334	0,373 0,000 334	0,523 0,000 334	0,490 0,000 334	0,379 0,000 334	0,541 0,000 334	0,483 0,000 334	0,151 0,006 334	1,000 0,000 334	0,374 0,000 334	0,328 0,000 334	0,207 0,000 332
Οι απαιτήσεις των πελατών λαμβάνονται υπόψη κατά τη διαδικασία ανάπτυξης/δημιουργίας μιας υπηρεσίας.	Correlation Coefficient Sig. (2-tailed) N	-0,017 0,762 334	0,048 0,380 334	-0,039 0,478 334	0,010 0,850 334	0,318 0,000 334	0,282 0,000 334	0,388 0,000 334	0,328 0,000 334	0,413 0,000 334	0,360 0,000 334	0,491 0,000 332	0,475 0,000 334	0,294 0,000 334	0,385 0,000 334	0,406 0,000 334	0,422 0,000 334	0,467 0,000 334	0,364 0,000 334	0,265 0,000 334	0,257 0,000 334	0,473 0,000 334	0,378 0,000 334	-0,066 0,231 334	0,374 0,000 334	1,000 0,000 334	0,575 0,000 334	0,397 0,000 332
[Βελτιώνετε συνεχώς τα συστήματα και τις διαδικασίες σας.] [ΠΑΡΟΝ]	Correlation Coefficient Sig. (2-tailed) N	0,083 0,132 334	0,123 0,025 334	0,007 0,900 334	0,119 0,029 334	0,357 0,000 334	0,264 0,000 334	0,460 0,000 334	0,322 0,000 334	0,387 0,000 334	0,374 0,000 334	0,517 0,000 332	0,443 0,000 334	0,466 0,000 334	0,396 0,000 334	0,391 0,000 334	0,432 0,000 334	0,506 0,000 334	0,425 0,000 334	0,296 0,029 334	0,120 0,000 334	0,342 0,000 334	0,344 0,000 334	-0,001 0,989 334	0,328 0,000 334	0,575 0,000 334	1,000 0,000 334	0,465 0,000 332
Παρέχετε εκπαίδευση και κατάρτιση στο ανθρώπινο δυναμικό ώστε να βελτιώνει συνεχώς την εργασία του.	Correlation Coefficient Sig. (2-tailed) N	-0,035 0,526 332	-0,031 0,569 332	-0,072 0,193 332	0,074 0,176 332	0,240 0,000 332	0,228 0,000 332	0,377 0,000 332	0,288 0,000 332	0,384 0,000 332	0,345 0,000 332	0,368 0,000 330	0,418 0,000 332	0,285 0,000 332	0,323 0,000 332	0,392 0,000 332	0,428 0,000 332	0,429 0,000 332	0,336 0,000 332	0,128 0,019 332	0,098 0,074 332	0,197 0,000 332	0,222 0,000 332	0,087 0,115 332	0,207 0,000 332	0,397 0,000 332	0,465 0,000 332	1,000 0,000 332
Το ανθρώπινο δυναμικό του οργανισμού (προϊστάμενοι και υφιστάμενοι) εκπαιδεύονται στη χρήση στατιστικών μεθόδων για τη λήψη αποφάσεων.	Correlation Coefficient Sig. (2-tailed) N	-0,005 0,924 334	0,075 0,171 334	-0,081 0,139 334	0,036 0,511 334	0,272 0,000 334	0,211 0,000 334	0,251 0,000 334	0,174 0,001 334	0,347 0,000 334	0,320 0,000 334	0,180 0,001 332	0,298 0,000 334	0,319 0,000 334	0,307 0,000 334	0,372 0,000 334	0,143 0,009 334	0,313 0,000 334	0,545 0,000 334	0,383 0,000 334	0,316 0,000 334	0,383 0,000 334	0,477 0,000 334	0,145 0,008 334	0,489 0,000 334	0,303 0,000 334	0,347 0,000 334	0,315 0,000 332
Οι προϊστάμενοι εκπαιδεύονται ώστε να γνωρίζουν καλά τις πολιτικές, τις στρατηγικές και τον τρόπο λειτουργίας του οργανισμού που εργάζονται.	Correlation Coefficient Sig. (2-tailed) N	-0,056 0,311 334	-0,040 0,469 334	-0,002 0,976 334	0,012 0,825 334	0,292 0,000 334	0,288 0,000 334	0,256 0,000 334	0,270 0,000 334	0,436 0,000 334	0,419 0,000 334	0,311 0,000 332	0,384 0,000 334	0,265 0,000 334	0,323 0,000 334	0,401 0,000 334	0,277 0,000 334	0,396 0,000 334	0,381 0,000 334	0,261 0,000 334	0,208 0,000 334	0,322 0,000 334	0,335 0,000 334	0,052 0,348 334	0,329 0,000 334	0,380 0,000 334	0,310 0,000 334	0,488 0,000 332
Το ανθρώπινο δυναμικό του οργανισμού (προϊστάμενοι και υφιστάμενοι) εκπαιδεύεται σε θέματα Διαχείρισης Ποιότητας.	Correlation Coefficient Sig. (2-tailed) N	-0,008 0,884 334	0,072 0,190 334	-0,009 0,870 334	0,091 0,097 334	0,299 0,000 334	0,221 0,000 334	0,271 0,000 334	0,255 0,000 334	0,342 0,000 334	0,336 0,000 334	0,267 0,000 332	0,328 0,000 334	0,229 0,000 334	0,400 0,000 334	0,441 0,000 334	0,230 0,000 334	0,346 0,000 334	0,478 0,000 334	0,385 0,000 334	0,338 0,000 334	0,414 0,000 334	0,453 0,000 334	0,059 0,278 334	0,448 0,000 334	0,354 0,000 334	0,310 0,000 334	0,394 0,000 332
Παρέχετε οδηγίες και υποστήριξη στο ανθρώπινο δυναμικό έτσι ώστε να εκτελεί την εργασία του αποτελεσματικά.	Correlation Coefficient Sig. (2-tailed) N	0,098 0,074 333	0,077 0,161 333	0,010 0,861 333	0,173 0,002 333	0,399 0,000 333	0,112 0,041 333	0,383 0,000 333	0,319 0,000 333	0,500 0,000 333	0,436 0,000 333	0,506 0,000 331	0,423 0,000 333	0,214 0,000 333	0,379 0,000 333	0,410 0,000 333	0,524 0,000 333	0,496 0,000 333	0,271 0,000 333	0,123 0,025 333	0,067 0,224 333	0,319 0,000 333	0,263 0,000 333	-0,144 0,008 333	0,310 0,000 333	0,468 0,000 333	0,453 0,000 333	0,373 0,000 331
Εξελίξετε τα εμπόδια που οφείλονται στις διαδικασίες του οργανισμού και εμποδίζουν το ανθρώπινο δυναμικό να εκτελεί την εργασία του αποδοτικά.	Correlation Coefficient Sig. (2-tailed) N	0,185 0,001 334	0,106 0,052 334	0,052 0,342 334	0,127 0,021 334	0,354 0,000 334	0,120 0,029 334	0,377 0,000 334	0,341 0,000 334	0,423 0,000 334	0,389 0,000 334	0,383 0,000 332	0,449 0,000 334	0,313 0,000 334	0,414 0,000 334	0,433 0,000 334	0,386 0,000 334	0,477 0,000 334	0,359 0,000 334	0,252 0,000 334	0,199 0,000 334	0,382 0,000 334	0,373 0,000 334	-0,068 0,214 334	0,299 0,000 334	0,395 0,000 334	0,502 0,000 334	0,373 0,000 332
Εξασφαλίστε για το ανθρώπινο δυναμικό ένα περιβάλλον εμπιστοσύνης και ελευθέρης έκφρασης χωρίς επικριτική διάθεση.	Correlation Coefficient Sig. (2-tailed) N	0,140 0,010 334	0,094 0,086 334	0,036 0,513 334	0,125 0,023 334	0,328 0,000 334	0,110 0,045 334	0,374 0,000 334	0,255 0,000 334	0,371 0,000 334	0,307 0,000 334	0,372 0,000 332	0,325 0,000 334	0,145 0,008 334	0,351 0,000 334	0,323 0,000 334	0,404 0,000 334	0,444 0,000 334	0,208 0,000 334	0,138 0,012 334	0,099 0,072 334	0,287 0,000 334	0,342 0,000 334	-0,126 0,021 334	0,293 0,000 334	0,391 0,000 334	0,415 0,000 334	0,306 0,000 332
[Ενθαρρύνετε τους εργαζόμενους να συμμετέχουν στη διαδικασία λήψης αποφάσεων.	Correlation Coefficient Sig. (2-tailed) N	0,183 0,001 334	0,101 0,064 334	0,026 0,632 334	0,137 0,012 334	0,390 0,000 334	0,160 0,003 334	0,290 0,000 334	0,208 0,000 334	0,326 0,000 334	0,319 0,000 334	0,370 0,000 332	0,370 0,000 334	0,153 0,005 334	0,349 0,000 334	0,329 0,000 334	0,375 0,000 334	0,391 0,000 334	0,345 0,001 334	0,187 0,001 334	0,049 0,373 334	0,341 0,000 334	0,340 0,000 334	-0,151 0,006 334	0,232 0,000 334	0,342 0,000 334	0,447 0,000 334	0,343 0,000 332
Ενθαρρύνετε την ανοχή και ελακτική επικοινωνία με το ανθρώπινο δυναμικό του οργανισμού εξελίχοντας ταυτόχρονα το φοβό.	Correlation Coefficient Sig. (2-tailed) N	0,097 0,076 334	0,026 0,639 334	-0,038 0,482 334	0,135 0,014 334	0,319 0,000 334	0,119 0,029 334	0,403 0,000 334	0,312 0,000 334	0,413 0,000 334	0,362 0,000 334	0,397 0,000 332	0,427 0,000 334	0,258 0,000 334	0,341 0,000 334	0,384 0,000 334	0,421 0,000 334	0,435 0,000 334	0,260 0,007 334	0,148 0,417 334	0,045 0,000 334	0,234 0,000 334	0,306 0,000 334	-0,070 0,200 334	0,224 0,000 334	0,424 0,000 334	0,511 0,000 334	0,372 0,000 332
Ενημερώνετε όλο το ανθρώπινο δυναμικό, ότι απώτερος στόχος του οργανισμού είναι να επηρεασθεί η βελτίωση της ποιότητας των παρεχόμενων υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	0,091 0,096 334	0,012 0,826 334	-0,035 0,529 334	0,112 0,041 334	0,411 0,000 334	0,161 0,003 334	0,376 0,000 334	0,235 0,000 334	0,526 0,000 334	0,425 0,000 334	0,512 0,000 332	0,445 0,000 334	0,207 0,000 334	0,347 0,000 334	0,383 0,000 334	0,390 0,000 334	0,484 0,000 334	0,337 0,001 334	0,177 0,301 334	0,057 0,000 334	0,357 0,000 334	0,293 0,000 334	-0,233 0,000 334	0,276 0,000			

Spearman's rho		Πόσο κανονικοί/η έστε από την επίτευξη των στόχων σας ως Προϊστάμενος/ή της Υπηρεσίας σας;	Πόσο κανονικοί/η έστε από την απόδοση του ανθρώπινου δυναμικού της Υπηρεσίας σας;	Πόσο κανονικοί/η έστε από την συνεργασία με τους προμηθευτές σας;	Πόσο κανονικοί/η έστε από τις βελτιώσεις που εφαρμόσατε στη λειτουργία της Υπηρεσίας σας;	Αναπτύσσετε τον οργανισμό σας μακροπρόθεσμα σχεδιάζοντας πάντα ως στόχο να γίνετε καλύτεροι.	Επενδύετε πόρους σε έρευνα και εκπαίδευση.	Βελτιώνετε συνεχώς τις διαδικασίες των προϊόντων και των υπηρεσιών που οργανισμός σας.	Προσπαθείτε να μελλοντικές προκλήσεις που έχετε διαβλέψει.	Αναπτύσσετε τον οργανισμό σας Οραμα και Στρατηγική για την ποιότητα.	Εφαρμόζετε στον οργανισμό σας Οραμα και Στρατηγική για την ποιότητα.	Έχετε ως προτεραιότητα τις ανάγκες των αποδεκτών των υπηρεσιών σας.	Εγκαθιδρύετε κοιλούρα ποιότητας σε όλο τον οργανισμό.	Η ηγεσία του οργανισμού δρομολογεί και ενοικιάσει ή αυξήσει την παραγωγή των υπηρεσιών.	Ενοσωμάτωτε τεχνικές ποιοτικού ελέγχου σε κάθε στάδιο σχεδιασμού της υπηρεσίας ή των υπηρεσιών που παρέχετε.	Ενοσωμάτωτε τεχνικές ποιοτικού ελέγχου σε κάθε στάδιο παραγωγής των υπηρεσιών που παρέχετε.	Αναζητείτε τα αίτια που προκαλούν τα λάθη που τυχόν εντοπίσετε.	Προβείτε σε ενέργειες για την εξάλειψη των αιτιών που προκαλούν λάθη/παρολιμίες/επιτακτικές κατά την παροχή της υπηρεσίας.	Χρησιμοποιείτε στατιστικές μεθόδους ποιοτικού ελέγχου για να αποδειχθεί ότι η διαδικασία λειτουργεί με επιτυχία.	Οι προμηθευτές συμμετέχουν στη διαδικασία ανάπτυξης/δημιουργίας με τους προμηθευτές σας.	Αναπτύσσετε μακροχρόνιες σχέσεις συνεργασίας με τους προμηθευτές σας.	Επιλέγετε τους προμηθευτές σας, στήριζόμενοι πρώτα ως στην ποιότητα των προϊόντων ή υπηρεσιών.	Απαλείψτε από τις προμήθειές σας, στήριζόμενοι πρώτα ως στην ποιότητα των προϊόντων ή υπηρεσιών.	Επιλέγετε τους προμηθευτές σας, στήριζόμενοι πρώτα ως στην ποιότητα των προϊόντων ή υπηρεσιών.	Χρησιμοποιείτε στατιστικά στοιχεία σχετικά με την ποιότητα των προϊόντων ή υπηρεσιών.	Οι απαιτήσεις πελατών για υπηρεσίες, για να διασφαλιστεί ότι προμηθευτές σας ανταποκρίνονται.	Οι απαιτήσεις πελατών για υπηρεσίες, για να διασφαλιστεί ότι προμηθευτές σας ανταποκρίνονται.	Βελτιώνετε συνεχώς τις διαδικασίες σας.	Παρέχετε εκπαίδευση και κατάρτιση στο ανθρώπινο δυναμικό ώστε να βελτιώνει συνεχώς την εργασία του.
Correlation Coefficient	Sig. (2-tailed)	1,000	0,451	0,525	0,444	0,057	-0,055	-0,062	-0,010	0,063	0,079	-0,048	0,063	0,061	0,053	0,065	-0,083	-0,073	0,000	-0,037	0,014	0,054	0,114	-0,071	0,056	-0,017	0,083	-0,035	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,451	1,000	0,385	0,484	0,042	0,058	0,015	0,039	0,078	0,057	0,007	0,070	0,056	0,087	0,083	0,044	0,027	0,137	0,077	0,164	0,138	0,155	0,006	0,139	0,048	0,123	-0,031	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,525	0,385	1,000	0,224	-0,012	-0,046	-0,115	-0,056	0,030	0,050	-0,045	-0,019	-0,032	-0,018	-0,031	-0,097	-0,096	-0,018	-0,015	0,067	0,026	0,065	0,024	-0,059	-0,039	0,007	-0,072	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,444	0,484	0,224	1,000	0,023	-0,030	0,099	0,040	0,116	0,113	0,050	0,071	0,153	0,004	0,059	0,092	0,100	0,083	0,004	0,010	0,012	0,087	-0,134	0,119	0,010	0,119	0,074	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,057	0,042	-0,012	0,023	1,000	0,364	0,504	0,498	0,615	0,545	0,420	0,409	0,267	0,500	0,515	0,400	0,387	0,428	0,238	0,160	0,412	0,346	-0,057	0,278	0,318	0,357	0,240	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,055	0,058	-0,046	-0,030	0,364	1,000	0,414	0,321	0,430	0,443	0,246	0,318	0,377	0,315	0,313	0,310	0,206	0,361	0,211	0,108	0,269	0,200	0,002	0,210	0,282	0,264	0,226	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,062	0,015	-0,115	0,099	0,504	0,414	1,000	0,519	0,514	0,482	0,484	0,490	0,321	0,405	0,416	0,522	0,440	0,352	0,202	0,083	0,239	0,219	-0,017	0,232	0,388	0,460	0,377	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,010	0,039	-0,056	0,040	0,498	0,321	0,519	1,000	0,367	0,435	0,340	0,349	0,114	0,326	0,428	0,407	0,383	0,271	0,179	0,121	0,306	0,193	0,083	0,186	0,328	0,322	0,288	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,063	0,078	0,030	0,116	0,615	0,430	0,514	0,367	1,000	0,762	0,484	0,586	0,363	0,582	0,590	0,495	0,510	0,526	0,262	0,176	0,354	0,341	-0,129	0,344	0,413	0,387	0,384	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,079	0,057	0,050	0,113	0,545	0,443	0,482	0,435	0,762	1,000	0,470	0,554	0,428	0,587	0,612	0,506	0,464	0,465	0,239	0,129	0,321	0,330	-0,085	0,319	0,360	0,374	0,345	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,048	0,007	-0,045	0,050	0,420	0,246	0,484	0,340	0,484	0,470	1,000	0,458	0,284	0,398	0,347	0,501	0,527	0,255	0,305	0,056	0,329	0,257	-0,075	0,239	0,491	0,517	0,368	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,063	0,070	-0,019	0,071	0,409	0,318	0,490	0,349	0,586	0,552	0,458	1,000	0,505	0,472	0,484	0,328	0,409	0,358	0,289	0,158	0,325	0,329	-0,045	0,298	0,475	0,443	0,418	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,061	0,056	-0,032	0,153	0,267	0,377	0,321	0,114	0,363	0,428	0,284	0,505	1,000	0,321	0,340	0,267	0,324	0,374	0,230	0,117	0,227	0,310	0,209	0,218	0,294	0,466	0,285	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,053	0,087	-0,018	0,004	0,500	0,315	0,405	0,326	0,582	0,587	0,398	0,472	0,321	1,000	0,845	0,501	0,452	0,586	0,270	0,236	0,411	0,488	-0,012	0,363	0,385	0,396	0,323	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,065	0,083	-0,031	0,059	0,515	0,313	0,416	0,428	0,590	0,612	0,347	0,484	0,340	0,845	1,000	0,507	0,514	0,605	0,297	0,291	0,436	0,453	-0,014	0,422	0,406	0,391	0,392	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,083	0,044	-0,097	0,092	0,400	0,310	0,522	0,407	0,495	0,506	0,501	0,328	0,267	0,501	0,507	1,000	0,696	0,364	0,239	0,200	0,353	0,234	-0,182	0,277	0,422	0,432	0,428	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	-0,073	0,027	-0,096	0,100	0,387	0,206	0,440	0,383	0,510	0,464	0,527	0,409	0,324	0,452	0,514	0,696	1,000	0,455	0,365	0,236	0,378	0,344	-0,063	0,373	0,467	0,506	0,429	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
Correlation Coefficient	Sig. (2-tailed)	0,000	0,137	-0,018	0,083	0,428	0,361	0,352	0,271	0,526	0,465	0,255	0,358	0,374	0,586	0,605	0,364	0,455	1,000	0,391	0,279	0,486	0,506	0,125	0,523	0,364	0,425	0,336	
N		334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334

Οι προμηθευτές σας συμμετέχουν στη διαδικασία ανάπτυξης/δημιουργίας μιας υπηρεσίας.	Correlation Coefficient Sig. (2-tailed) N	-0,037 0,501 334	0,077 0,163 334	-0,015 0,790 334	0,004 0,949 334	0,238 0,000 334	0,211 0,000 334	0,202 0,000 334	0,179 0,001 334	0,262 0,000 334	0,239 0,000 334	0,305 0,000 332	0,289 0,000 334	0,230 0,000 334	0,270 0,000 334	0,297 0,000 334	0,239 0,000 334	0,365 0,000 334	0,391 0,000 334	1,000 0,000 334	0,591 0,000 334	0,503 0,000 334	0,446 0,000 334	0,155 0,005 334	0,490 0,000 334	0,265 0,000 334	0,296 0,000 334	0,128 0,019 332
Αναπτύσσετε μακροχρόνιες σχέσεις συνεργασίας με τους προμηθευτές σας.	Correlation Coefficient Sig. (2-tailed) N	0,014 0,803 334	0,164 0,003 334	0,067 0,219 334	0,010 0,857 334	0,160 0,003 334	0,108 0,048 334	0,083 0,129 334	0,121 0,028 334	0,176 0,001 334	0,129 0,018 334	0,056 0,310 332	0,158 0,004 334	0,117 0,033 334	0,236 0,000 334	0,291 0,000 334	0,200 0,000 334	0,236 0,000 334	0,279 0,000 334	0,591 0,000 334	1,000 0,000 334	0,509 0,000 334	0,512 0,000 334	0,161 0,003 334	0,379 0,000 334	0,257 0,000 334	0,120 0,029 334	0,098 0,074 332
Επιλέγετε τους προμηθευτές σας, στηριζόμενοι πρωτίστως στην ποιότητα σε συνδυασμό με την τιμή των προϊόντων ή υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	0,054 0,327 334	0,138 0,011 334	0,026 0,638 334	0,012 0,822 334	0,412 0,000 334	0,269 0,000 334	0,239 0,000 334	0,306 0,000 334	0,354 0,000 334	0,321 0,000 334	0,329 0,000 332	0,325 0,000 334	0,227 0,000 334	0,411 0,000 334	0,436 0,000 334	0,353 0,000 334	0,378 0,000 334	0,486 0,000 334	0,503 0,000 334	0,509 0,000 334	1,000 0,000 334	0,697 0,000 334	-0,039 0,474 334	0,541 0,000 334	0,473 0,000 334	0,342 0,000 334	0,197 0,000 332
Απαιτείται από τους προμηθευτές σας να αφιερώνουν χρόνο στη βελτίωση της ποιότητας των δικών τους προϊόντων και υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	0,114 0,037 334	0,155 0,005 334	0,065 0,237 334	0,087 0,114 334	0,346 0,000 334	0,200 0,000 334	0,219 0,000 334	0,193 0,000 334	0,341 0,000 334	0,330 0,000 334	0,257 0,000 332	0,329 0,000 334	0,310 0,000 334	0,488 0,000 334	0,453 0,000 334	0,234 0,000 334	0,344 0,000 334	0,506 0,000 334	0,446 0,000 334	0,512 0,697 334	1,000 0,000 334	0,146 0,008 334	0,483 0,000 334	0,378 0,000 334	0,344 0,000 334	0,222 0,000 332	
Επιλέγετε τους προμηθευτές σας, στηριζόμενοι μόνο στην τιμή των προϊόντων ή υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	-0,071 0,195 334	0,006 0,916 334	0,024 0,659 334	-0,134 0,014 334	-0,057 0,302 334	0,002 0,965 334	-0,017 0,756 334	0,083 0,129 334	-0,129 0,018 334	-0,085 0,121 334	-0,075 0,174 332	-0,045 0,411 334	0,209 0,000 334	-0,012 0,833 334	-0,014 0,792 334	-0,182 0,001 334	-0,063 0,250 334	0,125 0,022 334	0,155 0,005 334	0,161 0,003 334	-0,039 0,474 334	0,146 0,008 334	1,000 0,006 334	0,151 0,006 334	-0,066 0,231 334	-0,001 0,989 334	0,087 0,115 332
Χρησιμοποιείτε τα στατιστικά στοιχεία σχετικά με την ποιότητα, για να διασφαλίσετε ότι οι προμηθευτές σας ανταποκρίνονται στα πρότυπα ποιότητας.	Correlation Coefficient Sig. (2-tailed) N	0,056 0,310 334	0,139 0,011 334	-0,059 0,281 334	0,119 0,029 334	0,278 0,000 334	0,210 0,000 334	0,232 0,000 334	0,186 0,001 334	0,344 0,000 334	0,319 0,000 334	0,239 0,000 332	0,298 0,000 334	0,218 0,000 334	0,363 0,000 334	0,422 0,000 334	0,277 0,000 334	0,373 0,000 334	0,523 0,000 334	0,490 0,000 334	0,379 0,000 334	0,541 0,000 334	0,483 0,000 334	0,151 0,006 334	1,000 0,000 334	0,374 0,000 334	0,328 0,000 334	0,207 0,000 332
Οι απαιτήσεις των πελατών λαμβάνονται υπόψη κατά τη διαδικασία ανάπτυξης/δημιουργίας μιας υπηρεσίας.	Correlation Coefficient Sig. (2-tailed) N	-0,017 0,762 334	0,048 0,380 334	-0,039 0,478 334	0,010 0,850 334	0,318 0,000 334	0,282 0,000 334	0,388 0,000 334	0,328 0,000 334	0,413 0,000 334	0,360 0,000 334	0,491 0,000 332	0,475 0,000 334	0,294 0,000 334	0,385 0,000 334	0,406 0,000 334	0,422 0,000 334	0,467 0,000 334	0,364 0,000 334	0,265 0,000 334	0,257 0,000 334	0,473 0,000 334	0,378 0,000 334	-0,066 0,231 334	0,374 0,000 334	1,000 0,000 334	0,575 0,000 334	0,397 0,000 332
[Βελτιώνετε συνεχώς τα συστήματα και τις διαδικασίες σας.] [ΠΑΡΟΝ]	Correlation Coefficient Sig. (2-tailed) N	0,083 0,132 334	0,123 0,025 334	0,007 0,900 334	0,119 0,029 334	0,357 0,000 334	0,264 0,000 334	0,460 0,000 334	0,322 0,000 334	0,387 0,000 334	0,374 0,000 334	0,517 0,000 332	0,443 0,000 334	0,466 0,000 334	0,396 0,000 334	0,391 0,000 334	0,432 0,000 334	0,506 0,000 334	0,425 0,000 334	0,296 0,029 334	0,120 0,000 334	0,342 0,000 334	0,344 0,000 334	-0,001 0,989 334	0,328 0,000 334	0,575 0,000 334	1,000 0,000 334	0,465 0,000 332
Παρέχετε εκπαίδευση και κατάρτιση στο ανθρώπινο δυναμικό ώστε να βελτιώνει συνεχώς την εργασία του.	Correlation Coefficient Sig. (2-tailed) N	-0,035 0,526 332	-0,031 0,569 332	-0,072 0,193 332	0,074 0,176 332	0,240 0,000 332	0,228 0,000 332	0,377 0,000 332	0,288 0,000 332	0,384 0,000 332	0,345 0,000 332	0,368 0,000 330	0,418 0,000 332	0,285 0,000 332	0,323 0,000 332	0,392 0,000 332	0,428 0,000 332	0,429 0,000 332	0,336 0,000 332	0,128 0,019 332	0,098 0,074 332	0,197 0,000 332	0,222 0,000 332	0,087 0,115 332	0,207 0,000 332	0,397 0,000 332	0,465 0,000 332	1,000 0,000 332
Το ανθρώπινο δυναμικό του οργανισμού (προϊστάμενοι και υφιστάμενοι) εκπαιδεύονται στη χρήση στατιστικών μεθόδων για τη λήψη αποφάσεων.	Correlation Coefficient Sig. (2-tailed) N	-0,005 0,924 334	0,075 0,171 334	-0,081 0,139 334	0,036 0,511 334	0,272 0,000 334	0,211 0,000 334	0,251 0,000 334	0,174 0,001 334	0,347 0,000 334	0,320 0,000 334	0,180 0,001 332	0,298 0,000 334	0,319 0,000 334	0,307 0,000 334	0,372 0,000 334	0,143 0,009 334	0,313 0,000 334	0,545 0,000 334	0,383 0,000 334	0,316 0,000 334	0,383 0,000 334	0,477 0,000 334	0,145 0,008 334	0,489 0,000 334	0,303 0,000 334	0,347 0,000 334	0,315 0,000 332
Οι προϊστάμενοι εκπαιδεύονται ώστε να γνωρίζουν καλά τις πολιτικές, τις στρατηγικές και τον τρόπο λειτουργίας του οργανισμού που εργάζονται.	Correlation Coefficient Sig. (2-tailed) N	-0,056 0,311 334	-0,040 0,469 334	-0,002 0,976 334	0,012 0,825 334	0,292 0,000 334	0,288 0,000 334	0,256 0,000 334	0,270 0,000 334	0,436 0,000 334	0,419 0,000 334	0,311 0,000 332	0,384 0,000 334	0,265 0,000 334	0,323 0,000 334	0,401 0,000 334	0,277 0,000 334	0,396 0,000 334	0,381 0,000 334	0,261 0,000 334	0,208 0,000 334	0,322 0,000 334	0,335 0,000 334	0,052 0,348 334	0,329 0,000 334	0,380 0,000 334	0,310 0,000 334	0,488 0,000 332
Το ανθρώπινο δυναμικό του οργανισμού (προϊστάμενοι και υφιστάμενοι) εκπαιδεύεται σε θέματα Διαχείρισης Ποιότητας.	Correlation Coefficient Sig. (2-tailed) N	-0,008 0,884 334	0,072 0,190 334	-0,009 0,870 334	0,091 0,097 334	0,299 0,000 334	0,221 0,000 334	0,271 0,000 334	0,255 0,000 334	0,342 0,000 334	0,336 0,000 334	0,267 0,000 332	0,328 0,000 334	0,229 0,000 334	0,400 0,000 334	0,441 0,000 334	0,230 0,000 334	0,346 0,000 334	0,478 0,000 334	0,385 0,000 334	0,338 0,000 334	0,414 0,000 334	0,453 0,000 334	0,059 0,278 334	0,448 0,000 334	0,354 0,000 334	0,310 0,000 334	0,394 0,000 332
Παρέχετε οδηγίες και υποστήριξη στο ανθρώπινο δυναμικό έτσι ώστε να εκτελεί την εργασία του αποτελεσματικά.	Correlation Coefficient Sig. (2-tailed) N	0,098 0,074 333	0,077 0,161 333	0,010 0,861 333	0,173 0,002 333	0,399 0,000 333	0,112 0,041 333	0,383 0,000 333	0,319 0,000 333	0,500 0,000 333	0,436 0,000 333	0,506 0,000 331	0,423 0,000 333	0,214 0,000 333	0,379 0,000 333	0,410 0,000 333	0,524 0,000 333	0,496 0,000 333	0,271 0,000 333	0,123 0,025 333	0,067 0,224 333	0,319 0,000 333	0,263 0,000 333	-0,144 0,008 333	0,310 0,000 333	0,468 0,000 333	0,453 0,000 333	0,373 0,000 331
Εξελίξετε τα εμπόδια που οφείλονται στις διαδικασίες του οργανισμού και εμποδίζουν το ανθρώπινο δυναμικό να εκτελεί την εργασία του αποδοτικά.	Correlation Coefficient Sig. (2-tailed) N	0,185 0,001 334	0,106 0,052 334	0,052 0,342 334	0,127 0,021 334	0,354 0,000 334	0,120 0,029 334	0,377 0,000 334	0,341 0,000 334	0,423 0,000 334	0,389 0,000 334	0,383 0,000 332	0,449 0,000 334	0,313 0,000 334	0,414 0,000 334	0,433 0,000 334	0,386 0,000 334	0,477 0,000 334	0,359 0,000 334	0,252 0,000 334	0,199 0,000 334	0,382 0,000 334	0,373 0,000 334	-0,068 0,214 334	0,299 0,000 334	0,395 0,000 334	0,502 0,000 334	0,373 0,000 332
Εξασφαλίστε για το ανθρώπινο δυναμικό ένα περιβάλλον εμπιστοσύνης και ελευθέρης έκφρασης χωρίς επικριτική διάθεση.	Correlation Coefficient Sig. (2-tailed) N	0,183 0,001 334	0,101 0,064 334	0,026 0,632 334	0,137 0,012 334	0,390 0,000 334	0,160 0,003 334	0,290 0,000 334	0,208 0,000 334	0,326 0,000 334	0,319 0,000 334	0,370 0,000 332	0,370 0,005 334	0,153 0,000 334	0,349 0,000 334	0,329 0,000 334	0,375 0,000 334	0,391 0,000 334	0,345 0,001 334	0,187 0,001 334	0,049 0,373 334	0,341 0,000 334	0,340 0,000 334	-0,151 0,006 334	0,232 0,000 334	0,342 0,000 334	0,447 0,000 334	0,343 0,000 332
Ενθαρρύνετε την ανοχή και ελακτική επικοινωνία με το ανθρώπινο δυναμικό του οργανισμού εξελίχοντας ταυτόχρονα το φοβό.	Correlation Coefficient Sig. (2-tailed) N	0,097 0,076 334	0,026 0,639 334	-0,038 0,482 334	0,135 0,014 334	0,319 0,000 334	0,119 0,029 334	0,403 0,000 334	0,312 0,000 334	0,413 0,000 334	0,362 0,000 334	0,397 0,000 332	0,427 0,000 334	0,258 0,000 334	0,341 0,000 334	0,384 0,000 334	0,421 0,000 334	0,435 0,000 334	0,260 0,000 334	0,148 0,007 334	0,045 0,417 334	0,234 0,000 334	0,306 0,000 334	-0,070 0,200 334	0,224 0,000 334	0,424 0,000 334	0,511 0,000 334	0,372 0,000 332
Ενημερώνετε όλο το ανθρώπινο δυναμικό, ότι απώτερος στόχος του οργανισμού είναι να επηρεασθεί η βελτίωση της ποιότητας των παρεχόμενων υπηρεσιών.	Correlation Coefficient Sig. (2-tailed) N	0,091 0,096 334	0,012 0,826 334	-0,035 0,529 334	0,112 0,041 334	0,411 0,000 334	0,161 0,003 334	0,376 0,000 334	0,235 0,000 334	0,526 0,000 334	0,425 0,000 334	0,512 0,000 332	0,445 0,000 334	0,207 0,000 334	0,347 0,000 334	0,383 0,000 334	0,390 0,000 334	0,484 0,000 334	0,337 0,001 334	0,177 0,301 334	0,057 0,000 334	0,357 0,000 334	0,293 0,000 334	-0,233 0,000 334	0,276 0,000 334	0,492 0,000 334	0,509 0,000 334	0,406 0,000 332
[Κάνετε το ανθρώπινο δυναμικό να αισθάνεται πολύτιμο.	Correlation Coefficient Sig. (2-tailed) N	0,000 0,998 334	-0,028 0,609 334	-0,062 0,257 334	-0,034 0,541 334	0,343 0,000 334	0,062 0,261 334	0,259 0,000 334	0,257 0,000 334	0,404 0,000 334	0,312 0,000 334	0,418 0,000 332	0,389 0,005 334	0,153 0,000 334	0,351 0,000 334	0,389 0,000 334	0,291 0,000 334	0,321 0,000 334	0,252 0,000 334	0,119 0,002 334	0,170 0,000 334	0,392 0,000 334	0,349 0,000 334	-0,098 0,074 334	0,235 0,000 334			

μελλοντικές αλλαγές και προκλήσεις		88																											
N		334	334	334	334	334	334	334	334	334	334	332	334	334	334	334	334	334	334	334	334	334	334	334	332				
Εκπαιδεύστε έτσι ώστε να συμβάλλετε στην προσαρμογή του ανθρώπινου δυναμικού στις αλλαγές και στη συνεχή βελτίωση του συστήματος διοίκησης?	Correlation Coefficient	0,038	-0,004	-0,015	0,042	0,314	0,271	0,262	0,238	0,364	0,341	0,331	0,330	0,230	0,363	0,333	0,298	0,319	0,303	0,168	0,104	0,225	0,208	-0,068	0,227	0,331	0,416	0,393	
	Sig. (2-tailed)	0,491	0,944	0,783	0,442	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,002	0,058	0,000	0,000	0,218	0,000	0,000	0,000	0,000	
	N	334	334	334	334	334	334	334	334	334	334	332	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	332
Ενθαρρύνετε το ανθρώπινο δυναμικό να υιοθετήσει στρατηγικές βελτίωσης της ποιότητας.	Correlation Coefficient	0,094	0,187	0,007	0,217	0,346	0,237	0,397	0,237	0,447	0,420	0,384	0,407	0,351	0,367	0,403	0,291	0,426	0,406	0,263	0,235	0,270	0,307	-0,021	0,255	0,456	0,415	0,317	
	Sig. (2-tailed)	0,085	0,001	0,903	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,707	0,000	0,000	0,000	0,000	
	N	334	334	334	334	334	334	334	334	334	334	332	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	332
Η βελτίωση της ποιότητας ευθυγραμμίζεται με το Όραμα και τη Στρατηγική του οργανισμού.	Correlation Coefficient	0,099	0,035	-0,037	0,157	0,407	0,281	0,377	0,292	0,519	0,511	0,313	0,380	0,326	0,470	0,518	0,335	0,429	0,566	0,360	0,236	0,368	0,454	0,047	0,336	0,344	0,440	0,357	
	Sig. (2-tailed)	0,070	0,527	0,499	0,004	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,392	0,000	0,000	0,000	0,000	
	N	334	334	334	334	334	334	334	334	334	334	332	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	332
Χρησιμοποιείτε ένα αποτελεσματικό σχέδιο δράσης για την υλοποίηση της αναβάθμισης της ποιότητας στον οργανισμό σας.	Correlation Coefficient	0,065	0,056	-0,062	0,121	0,355	0,172	0,335	0,275	0,478	0,412	0,370	0,434	0,247	0,422	0,472	0,359	0,397	0,407	0,206	0,120	0,334	0,346	-0,119	0,327	0,448	0,495	0,384	
	Sig. (2-tailed)	0,238	0,304	0,261	0,027	0,000	0,002	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,028	0,000	0,000	0,029	0,000	0,000	0,000	0,000	
	N	334	334	334	334	334	334	334	334	334	334	332	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	332

