

ΤΕΧΝΟΛΟΓΙΚΟ ΕΚΠΑΙΔΕΥΤΙΚΟ ΙΔΡΥΜΑ ΠΑΤΡΩΝ  
ΣΧΟΛΗ ΔΙΟΙΚΗΣΗΣ ΟΙΚΟΝΟΜΙΑΣ  
ΤΜΗΜΑ: ΕΠΙΧΕΙΡΗΜΑΤΙΚΟΥ ΣΧΕΔΙΑΣΜΟΥ ΚΑΙ ΠΛΗΡΟΦΟΡΙΑΚΩΝ  
ΣΥΣΤΗΜΑΤΩΝ

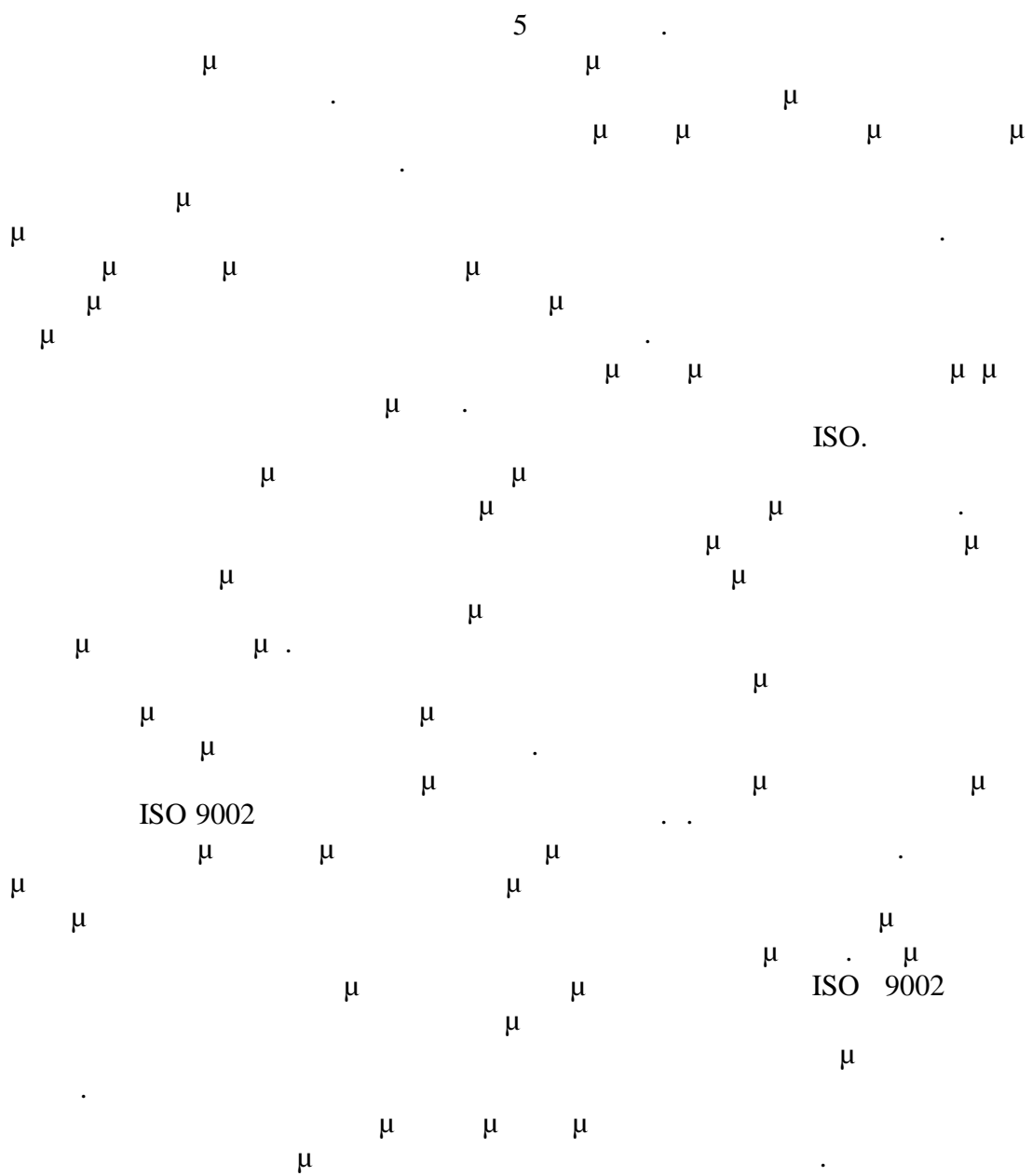
ΠΤΥΧΙΑΚΗ ΕΡΓΑΣΙΑ

«Η ΔΙΟΙΚΗΣΗ ΟΛΙΚΗΣ ΠΟΙΟΤΗΤΑΣ ΩΣ  
ΜΟΧΛΟΣ ΒΕΛΤΙΩΣΗΣ ΤΗΣ  
ΑΝΤΑΓΩΝΙΣΤΙΚΗΣ ΘΕΣΗΣ ΤΗΣ  
ΕΠΙΧΕΙΡΗΣΗΣ»

μ : μ  
μ :  
: μ







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1.	.....	9
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4.8	.	.....	83
4.9	.	.....	84
5.		.....	86
		.....	87
		.....	88
		.....	90
		.....	90



• : μ  
 • μ μ μ μ  
 μ : μ  
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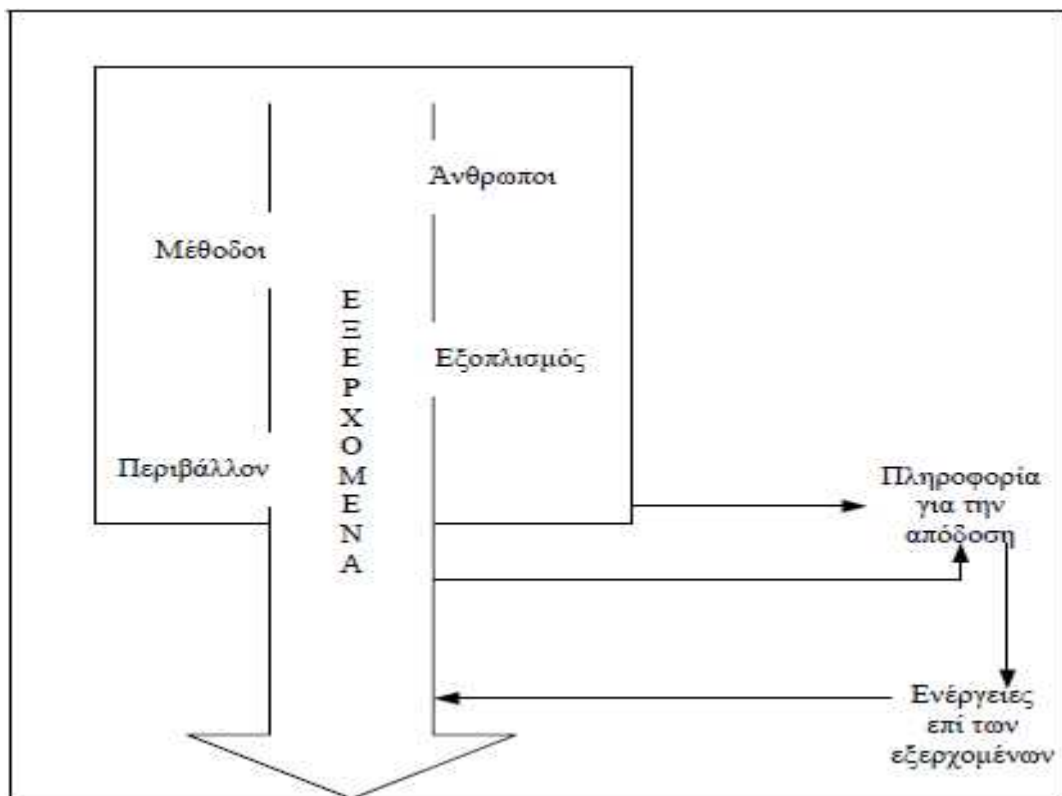


(detection)

(systematic)

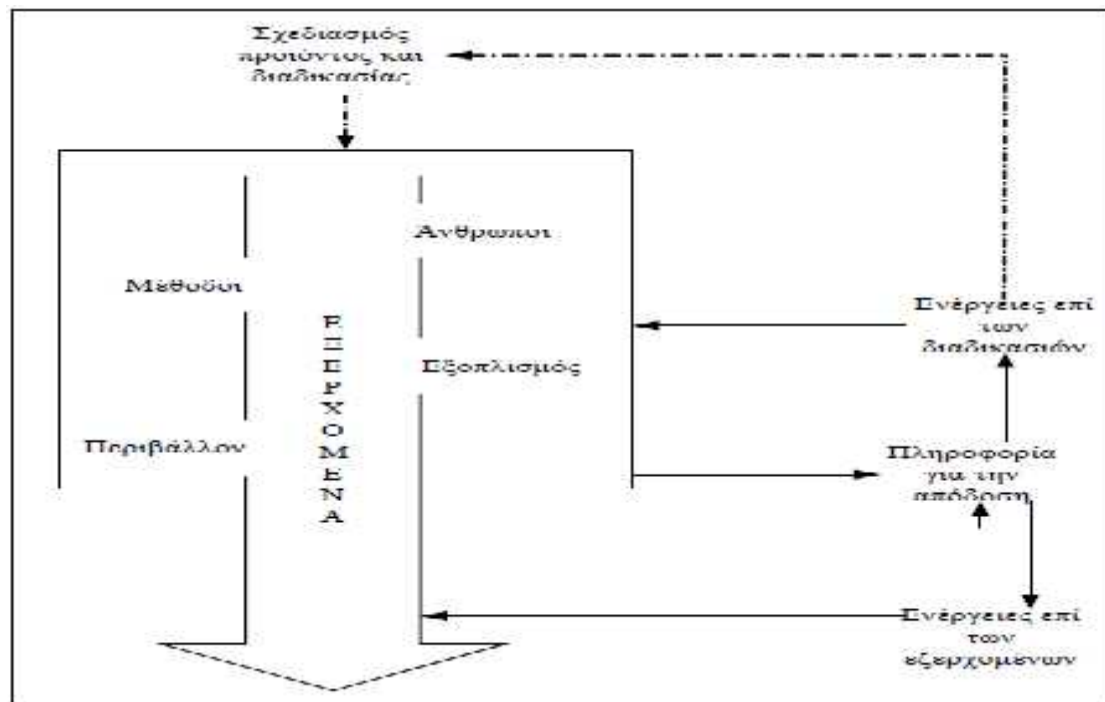
(planned)

[BS.4778: Part 1, 1987; ISO 8402, 1986].



μ 2: μ μ ( 2011)

[BS.4778: Part 2, 1991].



μ 3: μ ( 2011)

[Feigenbaum, p. 7, 1991].  
 (perception)  
 (attributes)  
 Murdick [1990]  
 «  
 ».  
 (elements). Feigenbaum [1991]  
 Rommel [1996]  
 « » (extracts)  
 [Lock, 1994].  
 Garvin [1984]  
 1.<sup>10</sup>

---

<sup>10</sup> , . . . , ( μ. 9).  
σελ. 14

(Performance)	.
(Features)	μ .
(Reliability)	μ μ μ .
μμ (Conformance)	μ μ .
(Durability)	.
(Serviceability)	, .
(Aesthetics)	, .
(Perceived quality)	μ μ μ μ , .

1:  
( μ μ & )









## 1.5

μ μ μ μ .

### Six Sigma

6 (six sigma) μ μ , μ  
μ , μ , μ  
μ 99,9997% (Heizer & Render, 2008).

μ μ (Employee Empowerment)  
μ μ μ μ  
(Heizer & Render, 2008).

(Quality Circle)  
μ μ μ , μ  
μ μ μ μ  
(Heizer & Render, 2008).

(Benchmarking)  
μ μ μ μ μ μ  
μ μ μ μ μ μ μ μ μ μ  
μ μ (internal benchmarking)<sup>13</sup> . μ μ , μ μ

### Just in Time

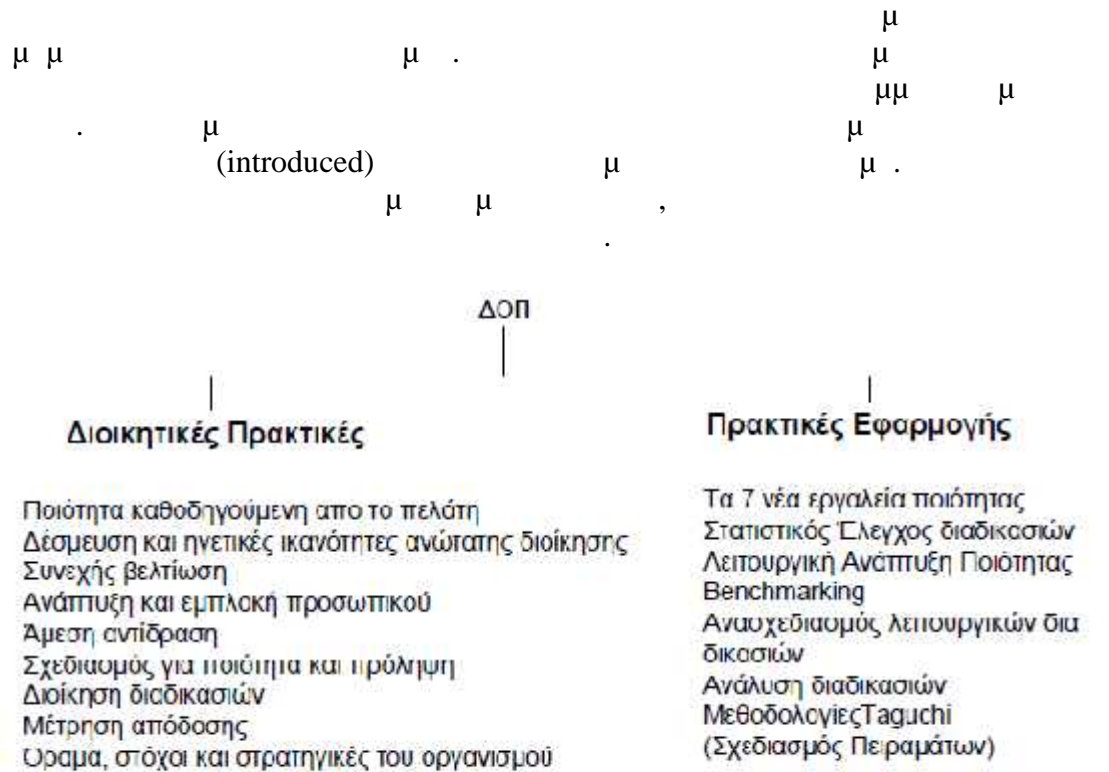
μ μ μ μ μ μ μ μ μ μ  
μ μ μ μ μ μ , just in time μ μ  
μ , μ<sup>14</sup> . μ μ μ μ

---

<sup>13</sup> , . . , ( μ. 3).

<sup>14</sup> , . . , ( μ. 3).

## 1.6



- [Rao et al, 1996]: (customer focus):
  - (internal)
  - (external). [Juran, 1988].
- (customer satisfaction):
- (Total participation):

- (continuous improvement):
- (wide range of applicability):
- (Innovation):
- (problem solving):
- (Quality Function Deployment-QFD).
- Taguchi (manufacturability)
- (initial operation)
- 1.3 ( ) (Just in Time).
- (cycle time, lead time)

μ , μ ,  
(vender). ,  
V μ  
· μ μ  
μ ) ( μ μ  
μ μ V.

## 1.7

Gower (1994)

(refinement) benchmarks (BPR) (progress) benchmarks.

“μ” & μ).

BS ISO 9000,

μ , μ μ μ  
 μ μ , μ . μ  
 μ . μ  
 al [ . 9, 1996] [ . 15, 1993] Rao et  
 μ μμ

1. μ μ μ μ μ
2. μ μ μ .
3. .
4. , μ ,
5. μ .
6. μ μ μ μ μ μ μ μ
7. μ .
8. (delivery) μ (integrated).



# 1.8

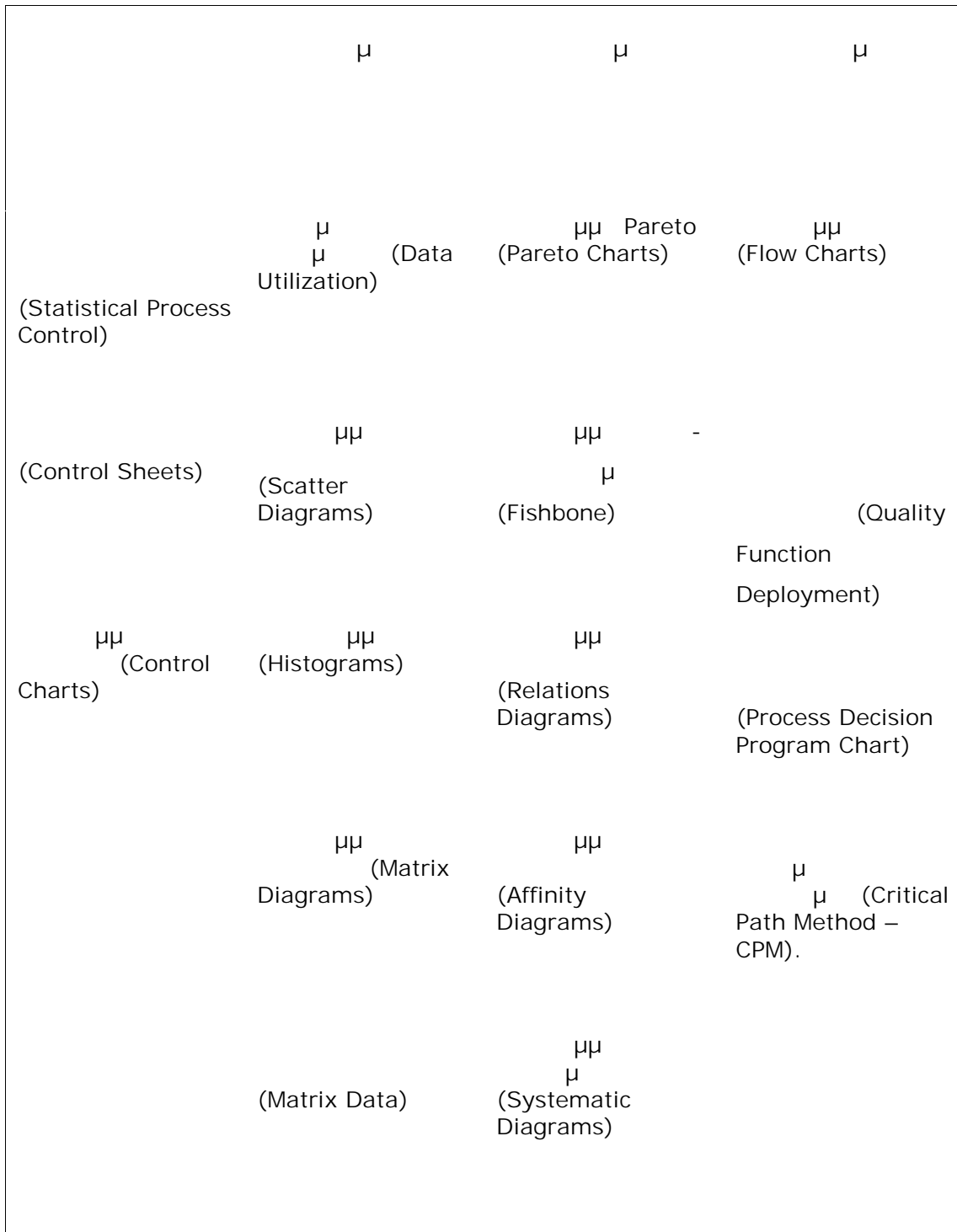
$\mu$   $\mu$   $\mu$   $\mu$  1.  
 $\mu$   $\mu$   $\mu$   $\mu$   
 $\mu$   $\mu$   $\mu$   $\mu$  ,  $\mu$  [Lindsay, 1997],  
 [Gitlow, 1995].  
 : 1.  $\mu\mu$   $\mu\mu$  , 2.  $\mu\mu$   $\mu\mu$  , 3.  
 $\mu\mu$  , 4.  $\mu\mu$   $\mu\mu$  , 5.  $\mu\mu$   $\mu\mu$   $\mu\mu$   
 $\mu$  , 6.  $\mu$   $\mu\mu$  , 7.  $\mu$   $\mu\mu$   
 $\mu$  .

## $\mu\mu$ (relationships diagram)

$\mu$   $\mu$  Dale [1994],  $\mu\mu$   $\mu$  ,  
 $\mu$   $\mu$   $\mu$  (causal relationships)  
 $\mu$  ,  $\mu$   $\mu\mu$  : [Mizuno, 1988]

- $\mu$   $\mu$   $\mu$  .
- $\mu$   $\mu$  .
- $\mu$   $\mu$   $\mu$   $\mu$  .
- $\mu$   $\mu$  .
- $\mu$   $\mu$   $\mu$   $\mu$  .

2.



:( , 2002) & (Heizer & Render, 2008)







## 1.10

μ μ μ  
μ μ μ μ  
μ μ μ μ . μ  
μ μ μ μ μ  
14 μ Deming Management

Ο . Deming, « » ,  
μ , μ Deming  
μ . 1984 Deming  
μ μ μ (JUSE) Deming  
μ μ μ 1951, DEMING,  
μ μ μ μ BALDRIGE ,  
EFQM. Ο Deming μ ,  
Deming μ μ μ . Ο  
μ μ μ μ μ μ μ .  
μ μ μ μ μ μ μ μ μ μ 14 μ  
μ «  
μ » . 14 μ μ :  
1. μ μ  
2. μ  
3. ( )  
4. μ μ μ μ μ  
5. μ  
6.  
7. μ  
8.  
9. μ μ μ μ μ  
10.  
11. μ  
12. μ μ μ μ μ

13. μμ μ

14. μ μ μ μ

μ

Deming : μ μ μ

1.

2. μ μ

3. ( )

4. ( μ )

5. μ μ . μ μ  
μ μ , , μ

To Deming μ 7 :

( ) μ . μ 14 μ , μ μ μ

( ) μ μ

( ) μ μ  
μ

( ) μ μ μ μ μ . μ  
μ μ μ μ

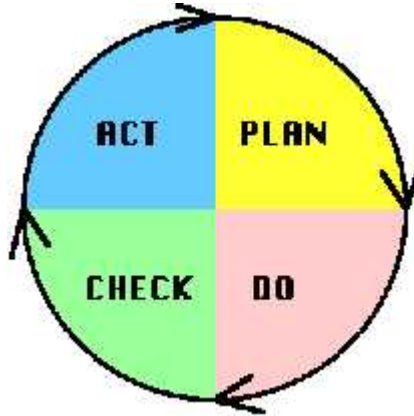
( ) μ μ μ Deming

( ) μ μ μ μ μ  
μ μμ , μ μ μ . μ

( ) μ μμ μ , μ μ 14 μ  
μ μ μ μ

# Deming

Deming (Deming W.E., 1986) (PDCA-Cycle). Deming Shewhart (Shewhart W.A. 1915)



«PDCA» ([www.balancedscorecard.org](http://www.balancedscorecard.org))

1. Plan
2. Do
3. Check
4. Act

## Juran

Joseph Juran (1900-1988) is a pioneer in the field of quality management. He is known for his work on the Juran Trilogy, which consists of three main phases: **Plan**, **Do**, and **Check**. The Juran Trilogy is a systematic approach to quality management that focuses on identifying and eliminating the causes of defects and waste. It is based on the PDCA cycle and is widely used in industry to improve product quality and reduce costs.



μ , Juran,

« μ » Juran μ :  
μ ( ) .  
« ».

Juran μ μ —  
μ .

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μ μ , μ status quo. μ μ μ μ

quo. , μ μ status μ

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μ , μ

μ μ , μ μ

μ μ μ μ Juran μ μ

μ μ μ μ μ μ

μ μ μ μ μ

μ μ μ μ μ μ μ μ

μ μ μ μ

## Crosby

O Crosby  
«μ μ « μ μ Crosby, »  
» “zero defects”. μ μ  
μ .

Crosby 4 μ μ :

(1) μ μ μ  
μ μ Crosby μ

(2) μ μ μ  
μ , μ μ μ

(3) μ μ μ « μ » (zero defects).  
μ μ , .

(4) μ μ μ - μ μ μ μ μ  
μ μ . μ μ μ

« μ » 14 μ . 4  
μ : ,

## 14 μ Crosby

1. μ
2. μ μ
- 3.
4. μ μ
5. μ μ μ
6. μ
7. μ μ μ
8. μ
9. ( )
10. μ μ μ

- 11.
12. ,
13. μ
- 14.

**kaizen Imai**

Imai Cambridge Corporation μ  
 μ μ μ μ Imai  
 μ μ , kaizen, μ μ  
 μ μ , kaizen  
 μ μ kaizen μ μ . μ μ  
 μ μ , μ μ , μ μ ,  
 μ kaizen μ  
 μ μ , μ  
 μ μ . kaizen μ μ μ μ μ  
 μ μ , μ μ μ μ μ ,  
 μ μ μ μ μ μ μ μ ,

**μ μ kaizen**

1. : kaizen.  
 μ μ , μ
2. Feigenbaum.  
 μ kanban ( ): μ μ
3. μ μ μ - :  
 μ μ , μ μ  
 μ μ , μ μ 6-10
4. μ μ : μ μ μ μ .
5. μ μ : μ μ μ .

## 2.

## ISO 9000

### 2.1

### ISO

ISO (International Organization for Standardization) is a non-governmental international organization that develops and publishes international standards. It was founded in 1947 as a result of the merger of the International Federation of the National Standardizing Associations (IFSA) and the United Nations Standards Coordinating Committee (UNSCC). The IFSA was established in 1926, and the UNSCC was established in 1944. ISO was officially established in 1946, with 23 member countries. Its headquarters are located in Geneva, Switzerland. ISO's mission is to develop and publish international standards that facilitate trade and harmonize technical specifications. ISO standards are used by organizations worldwide to ensure consistency and quality in their products and services. ISO 9000 is a family of standards that focuses on quality management systems. ISO 9001:2000 is the most widely used standard in this family. ISO 14001 is another standard in the family that focuses on environmental management systems. ISO standards are developed through a process of consensus among member countries. The process involves technical committees and working groups that meet regularly to discuss and develop standards. ISO standards are published in English, and translations are available in many other languages. ISO standards are used by organizations of all sizes and in all industries. They provide a framework for organizations to improve their performance and ensure that their products and services meet the needs of their customers. ISO standards are also used by governments and regulatory bodies to ensure that organizations are following best practices. ISO standards are a key part of the global infrastructure that supports international trade and economic growth. ISO standards are used by organizations to improve their quality, reduce costs, and increase efficiency. They also help organizations to meet the requirements of their customers and regulatory bodies. ISO standards are a valuable tool for organizations that want to improve their performance and ensure that their products and services are of the highest quality. ISO standards are used by organizations of all sizes and in all industries. They provide a framework for organizations to improve their performance and ensure that their products and services meet the needs of their customers. ISO standards are also used by governments and regulatory bodies to ensure that organizations are following best practices. ISO standards are a key part of the global infrastructure that supports international trade and economic growth. ISO standards are used by organizations to improve their quality, reduce costs, and increase efficiency. They also help organizations to meet the requirements of their customers and regulatory bodies. ISO standards are a valuable tool for organizations that want to improve their performance and ensure that their products and services are of the highest quality.

<sup>15</sup> , . . . ( μ. 10).

## 2.2

### ISO

ISO, η οποία ιδρύθηκε το 1920, είναι η μεγαλύτερη διεθνής οργάνωση για την ανάπτυξη και την προώθηση των προτύπων. Η ISO είναι μια μη κερδοσκοπική οργάνωση που αποτελείται από 112 μέλη, συμπεριλαμβανομένων των κρατών, των κυβερνήσεων, των επιχειρήσεων και των οργανισμών. Η ISO έχει την έδρα της στην Γενεύη, στην Ελβετία.

Η ISO έχει αναπτύξει περισσότερα από 26.000 πρότυπα, συμπεριλαμβανομένων των προτύπων για την ποιότητα, την ασφάλεια, την υγιεινή και την προστασία του περιβάλλοντος. Τα πρότυπα της ISO είναι βασικά για την παγκόσμια εμπορία και την ανταγωνιστικότητα. Τα πρότυπα της ISO είναι βασικά για την παγκόσμια εμπορία και την ανταγωνιστικότητα.

Το πρότυπο ISO 9000, που αναπτύχθηκε από την ISO το 1987, είναι το πιο γνωστό και χρησιμοποιούμενο πρότυπο. Το πρότυπο ISO 9000, που αναπτύχθηκε από την ISO το 1987, είναι το πιο γνωστό και χρησιμοποιούμενο πρότυπο. Το πρότυπο ISO 9000, που αναπτύχθηκε από την ISO το 1987, είναι το πιο γνωστό και χρησιμοποιούμενο πρότυπο.

Το πρότυπο ISO 9001:2008 αντικατέστησε το πρότυπο ISO 9001:2000. Το πρότυπο ISO 9001:2008 αντικατέστησε το πρότυπο ISO 9001:2000. Το πρότυπο ISO 9001:2008 αντικατέστησε το πρότυπο ISO 9001:2000.

Το πρότυπο ISO 9001:2008 αντικατέστησε το πρότυπο ISO 9001:2000. Το πρότυπο ISO 9001:2008 αντικατέστησε το πρότυπο ISO 9001:2000. Το πρότυπο ISO 9001:2008 αντικατέστησε το πρότυπο ISO 9001:2000.

## 2.3 9000

## ISO

ISO:9000:1994  
20  
(Evans & Lindsay, The Management and Control of Quality, 7th, 2008)  
ISO  
(Evans & Lindsay, The Management and Control of Quality, 7th, 2008).  
ISO,  
ISO 9000:2000

(soft elements)  
(Lorente & Lorente, 2003)<sup>16</sup>  
ISO 9000 (ISO 9000:2005 Quality Management Systems- Fundamentals and Vocabulary, ISO, 2005)

ISO 9000  
5  
ISO 9000  
ISO 9000

- ISO 9000 ("Quality Management and Quality Assurance Standards - Guidelines for Selection and Use"):

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<sup>16</sup> . . . ( μ. 12).

ISO 8402, ISO 9001-9004, ISO 9000

- ISO 9001 ("Model for Quality Assurance in Design/Development, Production, Installation and Servicing", (ISO 9001:2000)):
  - ISO 9002 ("Model for Quality Assurance in Production and Installation", (ISO 9002:2000)):
    - ISO 9003 ("Model for Quality Assurance in Final Inspection and Tests", (ISO 9003:2000)):
      - ISO 9004 ("Quality Management and Quality System Elements - Guidelines", (ISO 9004:2000)):

μ μ 22 μ . μ μ  
μ , marketing, μ μ , μ μ ,  
μ , μ , μ ,  
μ . ISO 9004 μ μ  
μ . μ μ  
μ μ . μ μ  
μ ISO 9000 μ μ  
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μ μ μ μ . μ μ  
μ μ μ μ , μ μ  
μ μ μ μ , μ μ  
μ μ μ μ , μ μ  
μ μ μ μ , μ μ  
μ μ μ μ .



## 2.4

## ISO 9000:2000

2008  
9000:2000  
Management System,  
Organization, 2009).

ISO 9001:2008 Quality Management System (ISO Organization, 2009).

(Hernandez, 2010).  
3,

ISO 9001:2008 Quality Management System (ISO Organization, 2009).

(Psomas & Fotopoulos, 2009).  
2000, ISO 9000:2000,

ISO 9000:2000  
: ISO 9000:2005 Quality Management  
Systems — Fundamentals and Vocabulary

ISO 9001:2008 Quality Management Systems

ISO 8402:1994.

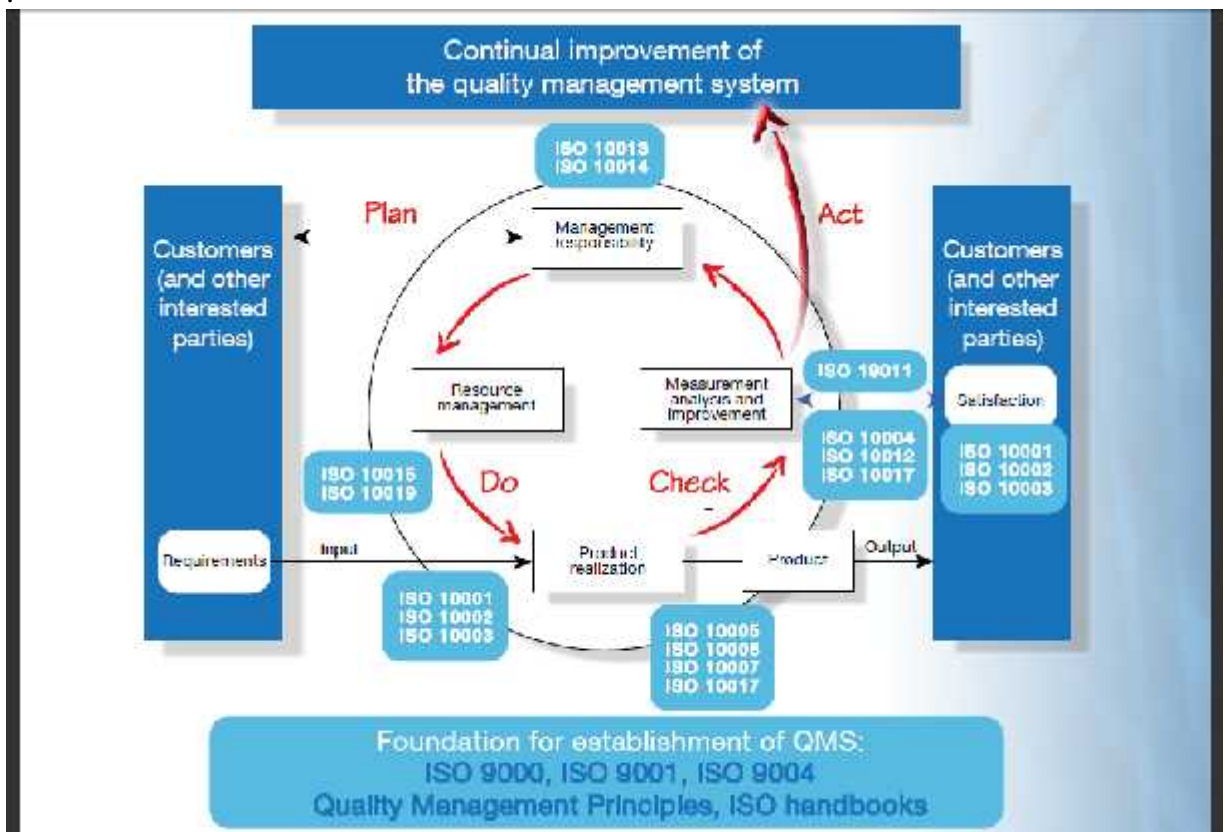
ISO 9001:2008

ISO 9000,  
ISO 9004:2009 Managing for the sustained success of an organization - A quality management approach.

ISO 9001  
ISO 9004

ISO 9004

(SWOT analysis).



:

μ ISO (www.iso.org)



## 2.6 ΟΙ 19

## ΤΟΥ ISO 9002

19

ISO 9002

1. μ μ
2. μ
3. ( μ )
4. μ ( μ ) μ
5. μ
- 6.
- 7.
- 8.
9. μ
10. μ , μ μ
11. & μ
12. μ ( μ μ μ )
13. &
14. , , , &
- 15.
- 16.
- 17.
- 18.
19. μ μ , , , , .

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ISO

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**2 :** ( μ )

- μ μ ( μ )
- μ μ ( μ )
- μ μ ( μ )

**3 :** ( μ )

- μ μ ( μ )
  - μ μ ( μ )
  - μ μ ( μ )
- & ( μ μ )

**3 :** ( μ )

- μ μ ( μ )
- μ μ ( μ )
- μ μ ( μ )

**4:** ( )

μ ( μ ) :

- $\mu$   $(\mu)$   $\mu$
- $(\mu)$   $\mu$   $\mu$
- $\mu / (\mu, \mu)$   $\mu$   $\mu$

**4 :**  $(\mu)$   
 $(\mu)$

- $\mu$   $(\mu)$   $\mu$   $\mu$   $\mu$   $\mu$
- $\mu$   $\mu$   $\mu$   $\mu$

**5 :**

- $\mu$   $\mu$   $\mu$   $\mu$   $\mu$
- $\mu$
- $\mu$
- $\mu$   $(\mu \mu \mu)$   $\mu$   $\mu$   $\mu$
- $\mu$   $\mu$

**5 :**  $(\mu)$

- $\mu$   $\mu$   $\mu$   $\mu$   $\mu$   $(, ,)$





μ μμ μ μ μ ( . .

**8 :** ( μ )

- μ μ μ μ μ μ μ
- μ μ μ μ μ

**9 :**

μμ μ μ :

- 
- 
- 

μ μ μ μ

**9 :** ( μ )

μ μ μ μ μ μ μ μ μ μ μ μ

μ μ

μ μ μ

μ

μ μ μ μ μ μ μ μ μ μ μ μ



**12 :** ( ) ( μ )

μ μ μ μ μ μ  
· μ μ μ μ μ μ  
,  
-  
-  
-

**13 :** μ μ μ μ

μ  
·

**13 :**  
( μ )  
,  
· μ μ μ μ μ μ μ μ  
μ μ μ μ μ μ  
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·  
,  
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μ μ  
μ  
·

14 : , , ,  
&

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. μ μ μ  
. μ μ μ  
. ( . . μ ) μ

15 :

& , μ μ μ ( . .  
) :

. μ  
. μ μ μ μ .  
. μ μ μ .

15 : ( )

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. μ  
. μ  
. μ ( )  
. .  
. .  
. .

16 :

μ μ μ μ . μ μ

μ

μ

16 :

( )

( , )

μ

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( )

μ μ

17:

μ μ μ

17 : ( )

• μ μ

• μ

18 :

μ

:

- μμ

- μ

-

-

19 :

μ

19 :

( )

μ

μ

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μ

μ

%

μμ



μ ISO 9000:2000 (Frick et al, 2004),  
 μ , μ  
 μ TQM μ μ ISO 9000 μ  
 (Frick et al, 2004).  
 μ , μ ISO  
 μ μ . μ ,  
 μ μ  
 μ , μ  
 (Gotzamani, 2005).<sup>18</sup> μ

---

<sup>18</sup> , . . . , ( μ. 12).











## 3.2 EXCELLENCE MODEL)

(EFQM

Management) μ μ  
 μ « μ 1992 μ » μ  
 μ μ μ μ

E.F.Q.M. (European Foundation for Quality  
 . .Q. (European Organization for Quality),

9 μ :

- 20%
- μ 9%
- 15%
- 6%
- μ μ :
- 10%
- 8%
- μ 9%
- 9%
- 14%
- 9 μ μ μ μ



### 3.3 RADAR

## EFQM

The EFQM RADAR model is a framework for organizational excellence, divided into four quadrants: Results, Approach, Deployment, and Assessment & Review. Each quadrant is further subdivided into specific areas of focus.



© EFQM 1999

μ μ μ

μ

(<http://www.efqm.org>)

- (Approach) μ
- μ (Deployment) μ μ

- (Assess & Review) μ ,
  - μ (Results) μ ,
- μ μ 5 0% μ ,
- μ μ 25% μ 50%
- 100% μ 75% μ
- 21

---

<sup>21</sup> . TQM HELLAS-INTERBOOKS, 2005<sup>2</sup>. , Deming Taguchi SPC,





### 3.5 DEMING

- To Deming μ 1951  
 μ (Union of Japanese Scientists and Engineers - JUSE),  
 μ W. Edwards Deming
- . To Deming :
1. To Deming μ μ μ μ ,  
 μ μ μ ,
2. To Deming μ , μ μ μ μ ,  
 μ μ μ μ μ μ μ μ ,
3. To Deming , μ μ ,  
 μ μ μ .



## 4.2

μ " . ." μ ,

μ μ ,

μ μ μ μ

μ μ . μ ,

μ μ - μ - ,

μ μ .

μ μ μ μ μ μ

39 .3. ' 10.000 μ. 30.000 μ μ ,

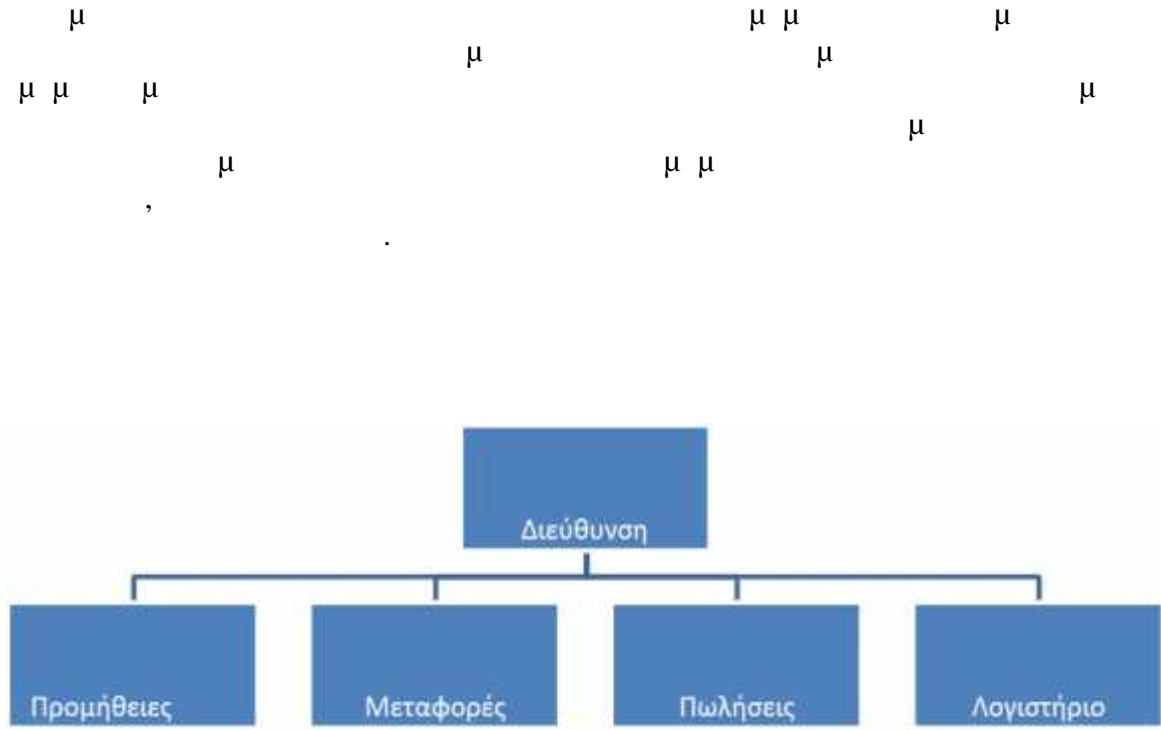
" . ." μ μ μ μ μ

20 μ μ μ μ μ .

μ μ " μ μ . . ." μ μ μ μ

μ μ μ . μ

## 4.2.1



- 1.
- 2.
- 3.

## 4.2.2

μ, μ

μ

μ μ μ μ

μ μ μ

μ μ μ μ μ μ

μ μ μ μ μ μ

μ μ μ μ μ μ μ μ

μ μ μ μ μ μ μ μ μ



: [www.bakalaros.gr](http://www.bakalaros.gr)

24 μ μ μ μ μ μ μ

### Merchandising

μ μ μ μ μ μ μ μ μ μ

μ

LOGISTICS CENTER



: [www.bakalaros.gr](http://www.bakalaros.gr)











## 4.5

- 1: ;
- 2: ;
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6 : ISO 9002;  
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7 : / ISO  
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8: ISO;  
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... (2005). ... ( .38). : μ ... (2011). μ ISO 9001:2008 coca-cola μ ... (2010). « μ μ ... « anaging for Total Quality», Prentice-Hall International Limited, 2000

Business Excellence Model & μ μ EFQM ALUMIL.2011

... (2002). : .

Crosby, P. (1979). Quality is Free. USA.

Dale, B. G., Boaden, R. J. and Lascelles, D. M., «Total Quality Management: An Overview». In: Dale, B. G. (Ed.), Managing Quality, 2nd edition, Hemel Hempstead, Prentice – Hall.

Evans, J., & Lindsay, W. (2008). The Management and Control of Quality. USA: Thomson SouthWestern.

Feigenbaum, A.V., «Total Quality Control», 3rd Edition, McGraw – Hill, pp. 5 – 6, 11– 14, NY, 1991.

Gower. « », ,1994

Ishikawa, K., «What is Total Quality Control? The Japanese Way», Prentice – Hall, Englewood Cliffs, NJ.

ISO Organization. (2008, June). About ISO: ISO in brief . 11 17, 2010, International Organization for Standarization: [http://www.iso.org/iso/publications\\_and\\_e-products/about\\_iso.htm#PUB100007](http://www.iso.org/iso/publications_and_e-products/about_iso.htm#PUB100007)

ISO Organization. (2009). ISO 9000 Selection and Use. 1 1, 2011,  
International  
Organization for Standardization: <http://www.iso.org>

ISO Organization. (2010). ISO CEO Brochure. 11 15, 2010,  
International Organization for Standardization: <http://www.iso.org>

Juran, J. M. and Gryna, F. M., «Quality Planning & Analysis», Tata McGraw – Hill,  
pp. 126 – 128, New Delhi, 1988.

Tzelepis, D., Tsekouras, K., Skuras, D., & Dimara, E. (2006, Vol 26 No 10).The  
effects os ISO 9001 on firms productivity efficiency. International Journal of  
Operations & Production Management , . 1146-1165.

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. . [www.bakalaros.gr](http://www.bakalaros.gr)

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**Επιστημονικά Υπεύθυνος: Κος Παναγιώτης Γατομάτης**

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