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"Navigating Global Quality in a New Era"

INTEGRATED QUALITY MANAGEMENT TRAINING

(Albert Balogh)

HNC for EOQ
European Organization for Quality
Hungarian National Committee

EUROPEAN ORGANIZATION FOR QUALITY

Fig.1

BODY OF KNOWLEDGE FOR QUALITY MANAGEMENT TRAINING

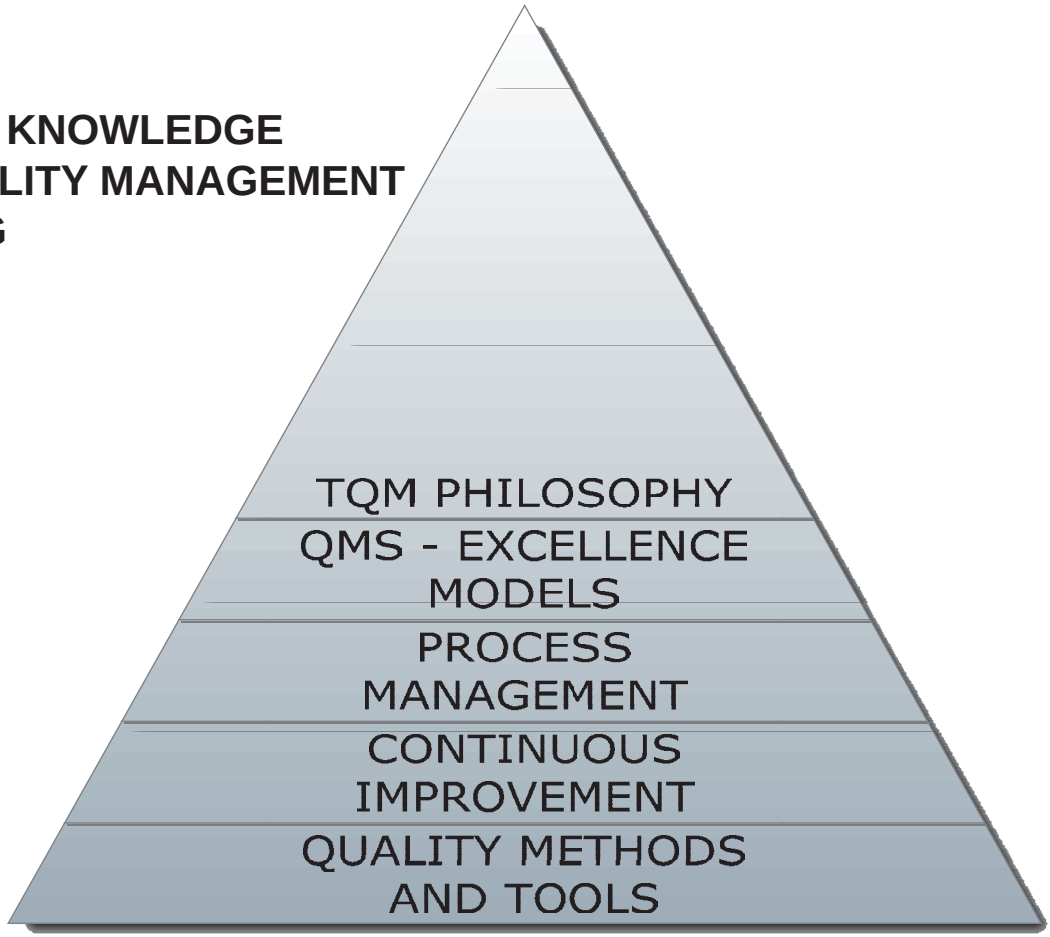

Fig.2 Knowledge criteria for Quality Sytem Managers in EOQ-CoS 9000-2009

1. Quality management
2. Organisation of the quality function
3. Process management principles
4. Quality improvement techniques
5. Resource management
6. Quality in logistics, sales and after sales services
7. Design and development process management
8. Purchasing and subcontracting
9. Production and service processes
10. Monitoring and measurment of processes/product
11. Data collection and analysis, statistical methods
12. Inspection, Testing and Metrology
13. Control of nonconformity
14. Social aspects
15. Legal and regulatory aspects

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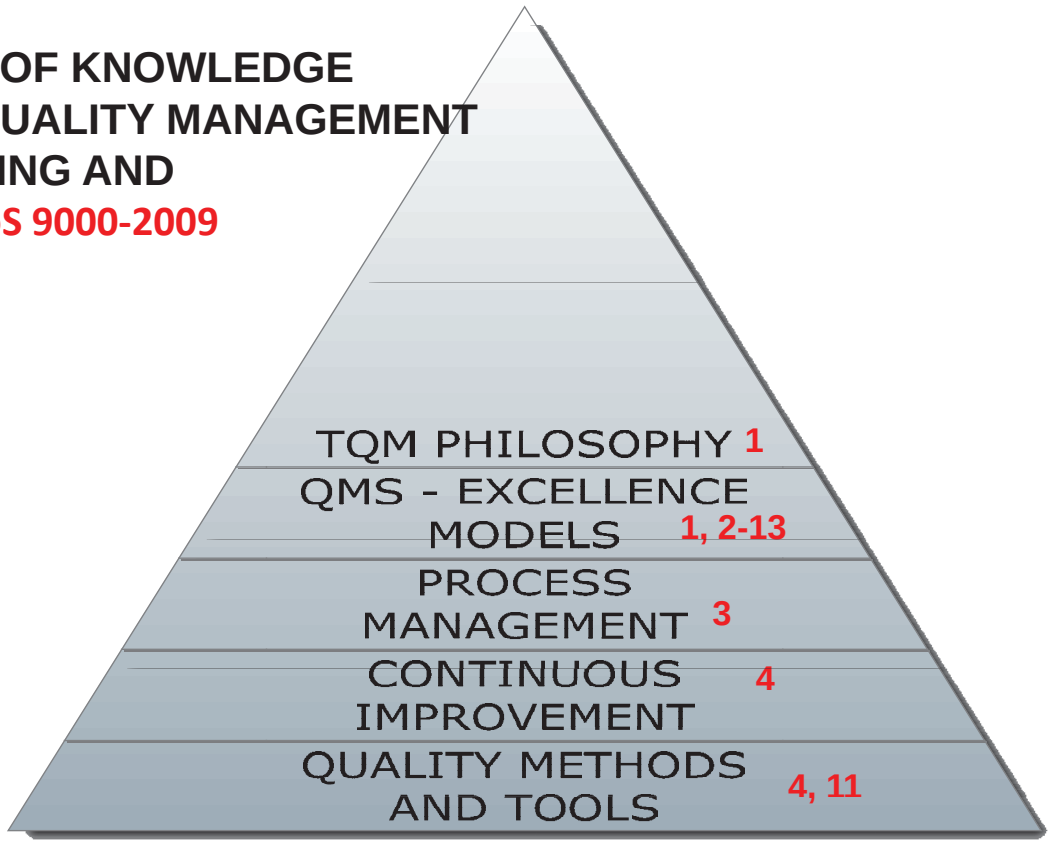
NOT COVERED BY BOK

Fig.3

BODY OF KNOWLEDGE FOR QUALITY MANAGEMENT TRAINING AND EOQ-CoS 9000-2009



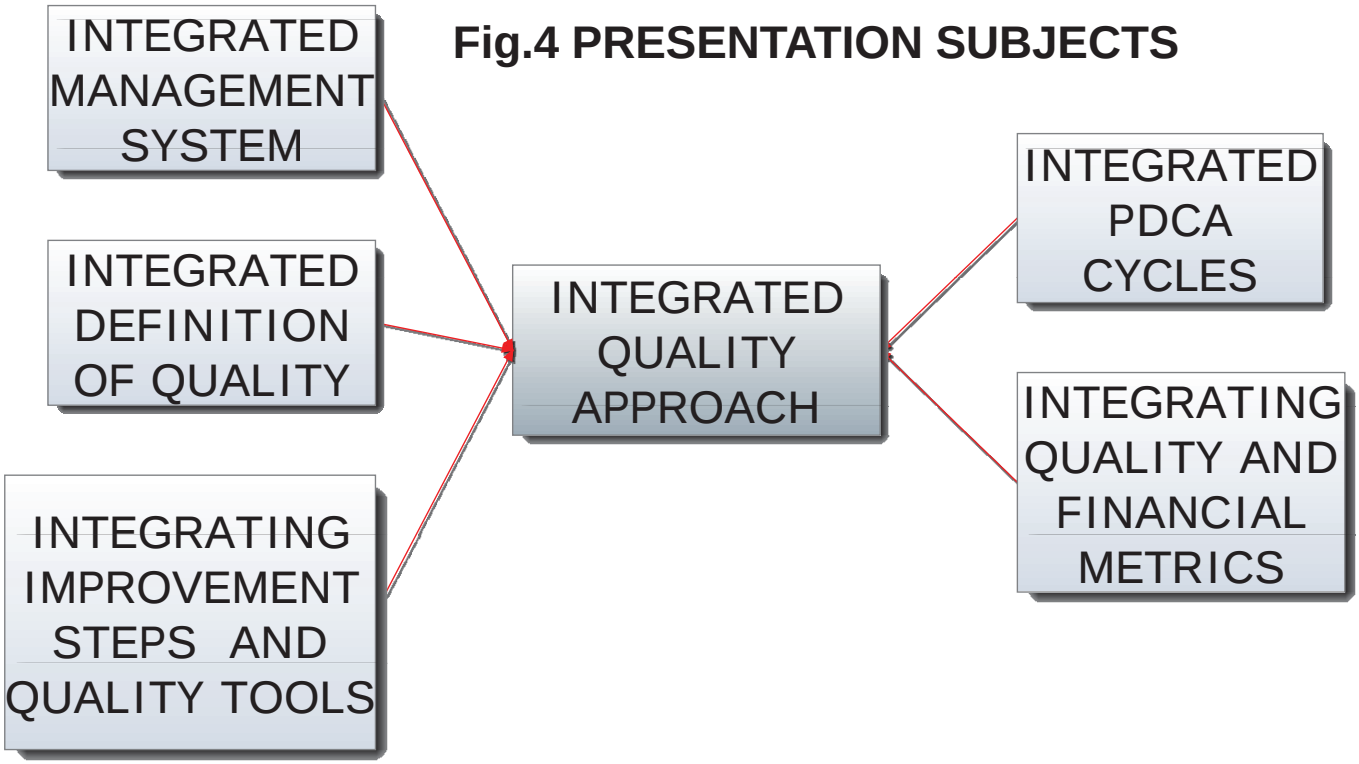


Fig.4 PRESENTATION SUBJECTS

Fig.5 Integrated interpretation of quality for an organization

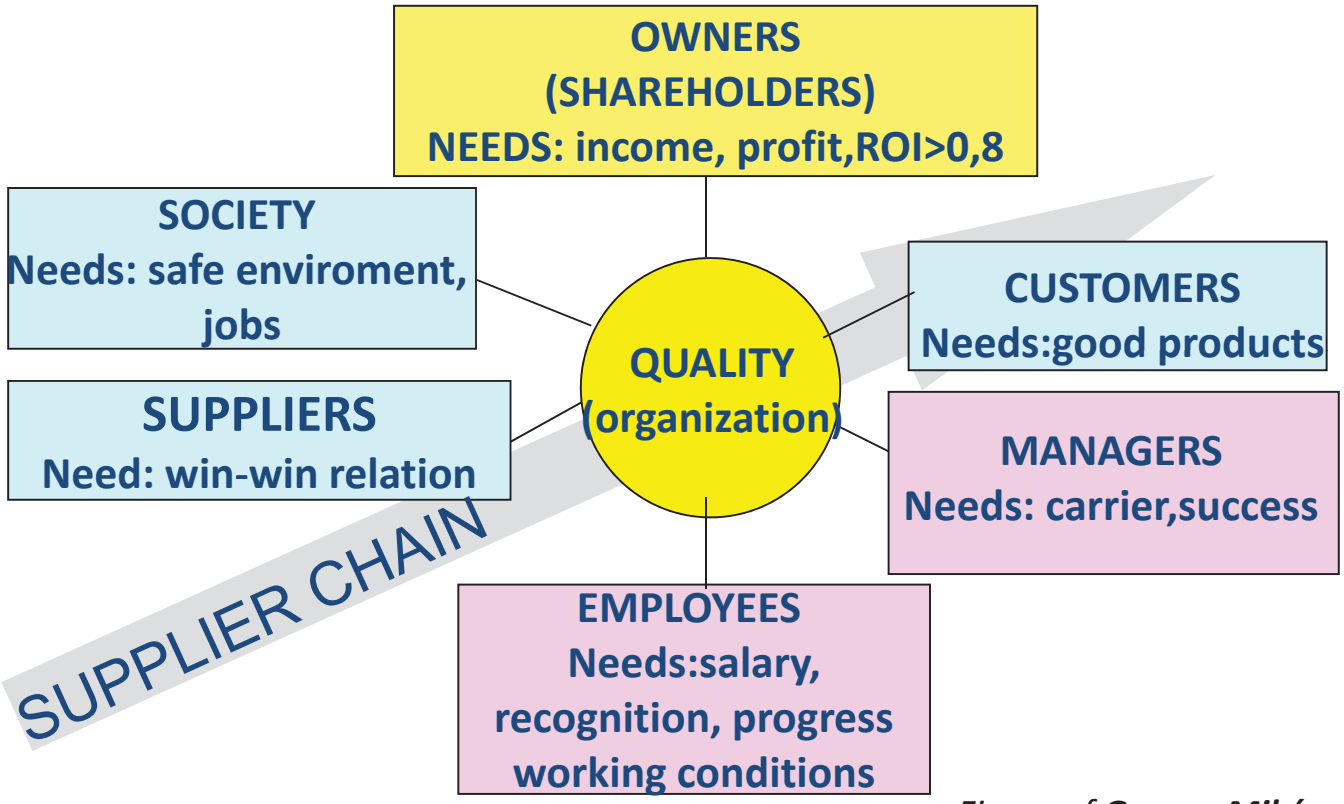


*Figure of **George Mikó***

Fig.6 Integrated interpretation of quality for an organization

ISO 9000:2005:

quality -
degree to which a set of inherent characteristics fulfills requirements

ISO 9004:2009:

sustained success –
(organization) result of the ability of an organization to achieve and maintain its objectives in the long term

ISO 9004:2009:

…to achieve the sustained success top management should identify all its relevant interested parties and determine how to meet their needs and expectations in a balanced way

quality of an organization - degree to which an organization meets the requirements of their interested parties in a balanced way

Fig.7 Integrated management systems

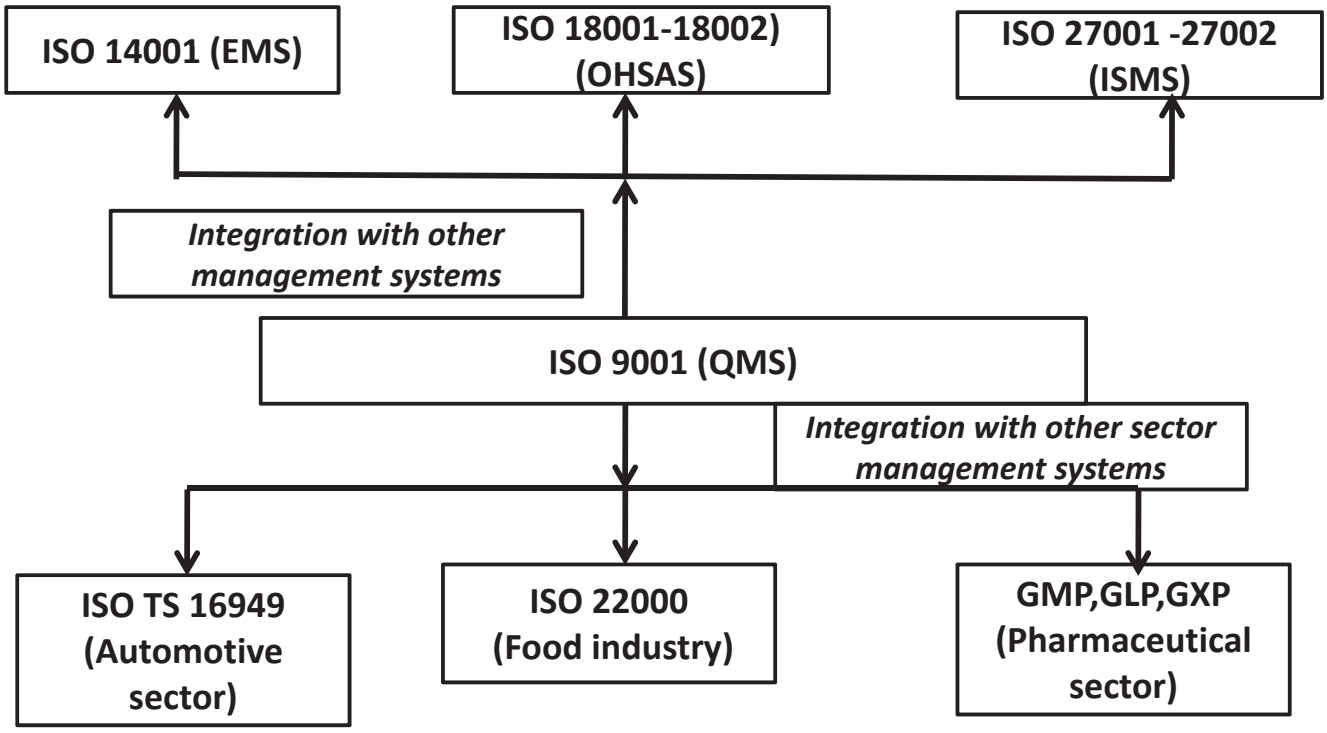


Fig.8 Model of a process based quality management system

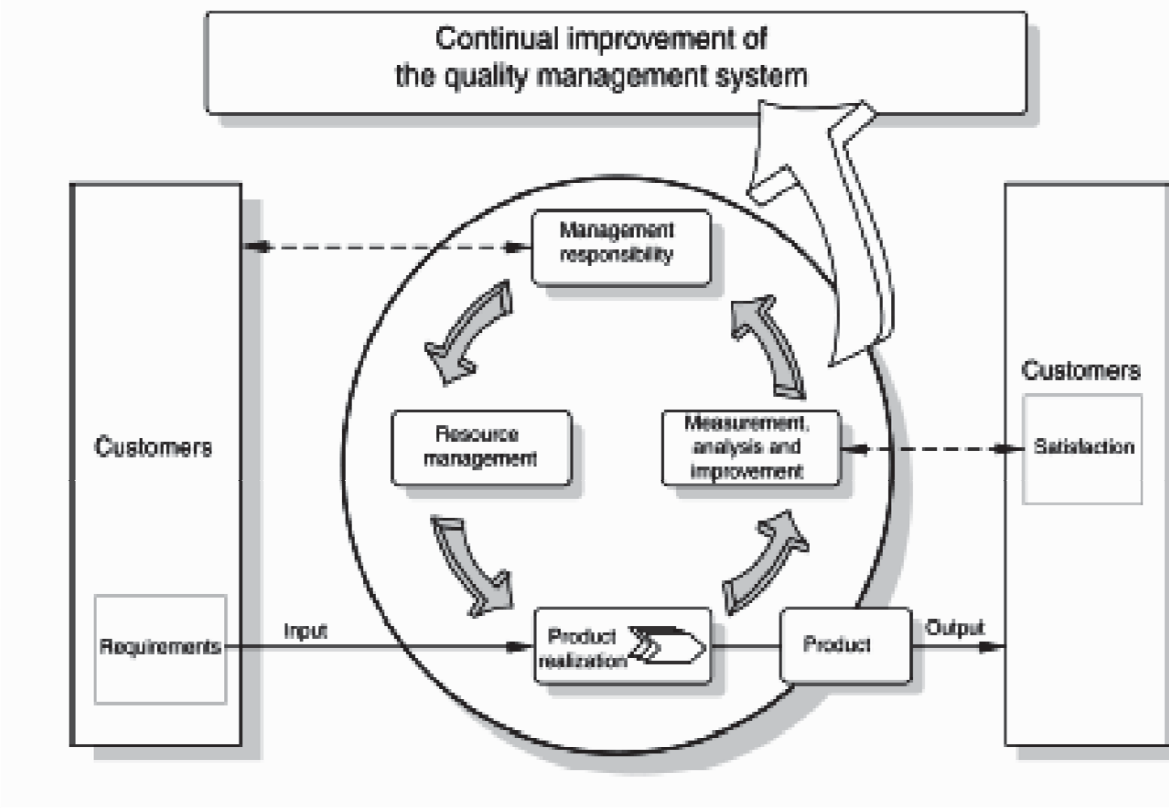


Fig.9 Product PDCA

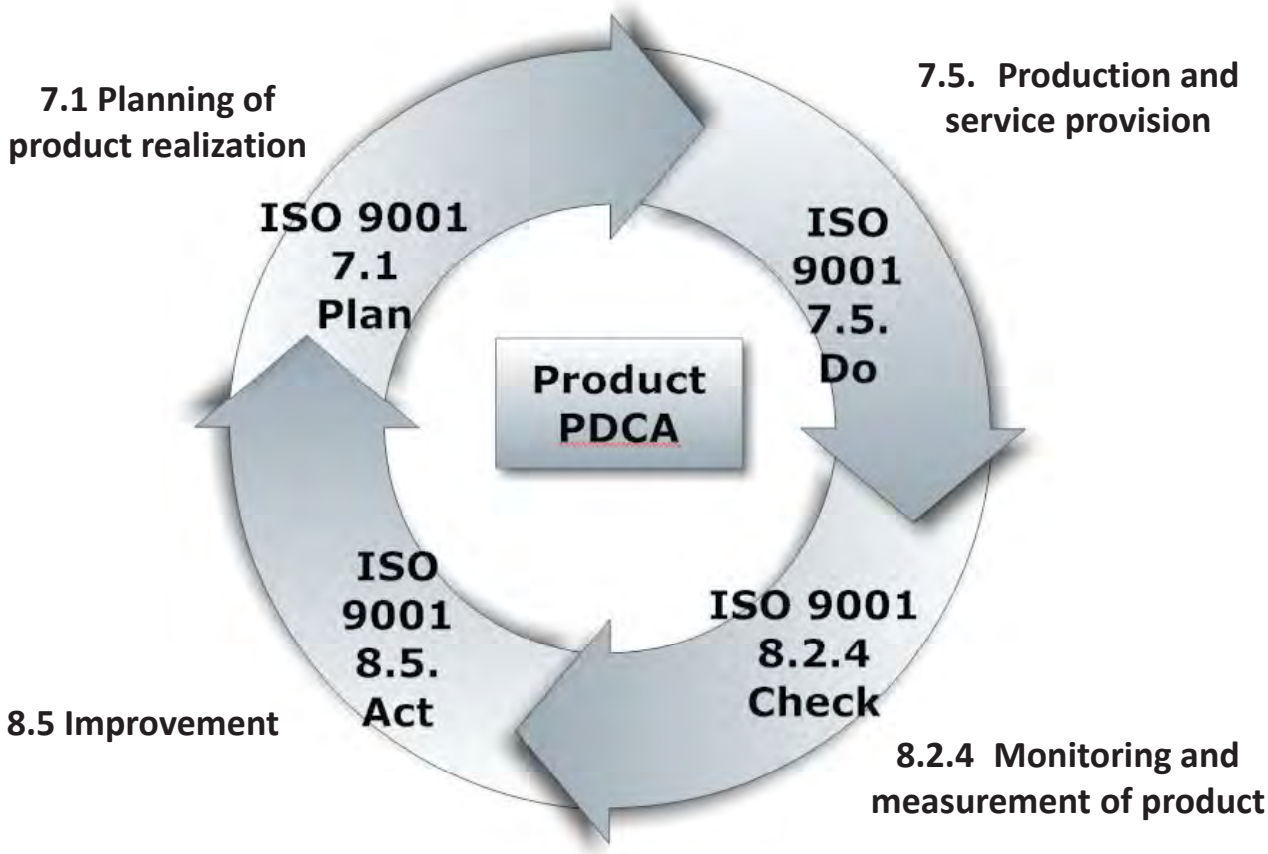


Fig.10 Process PDCA

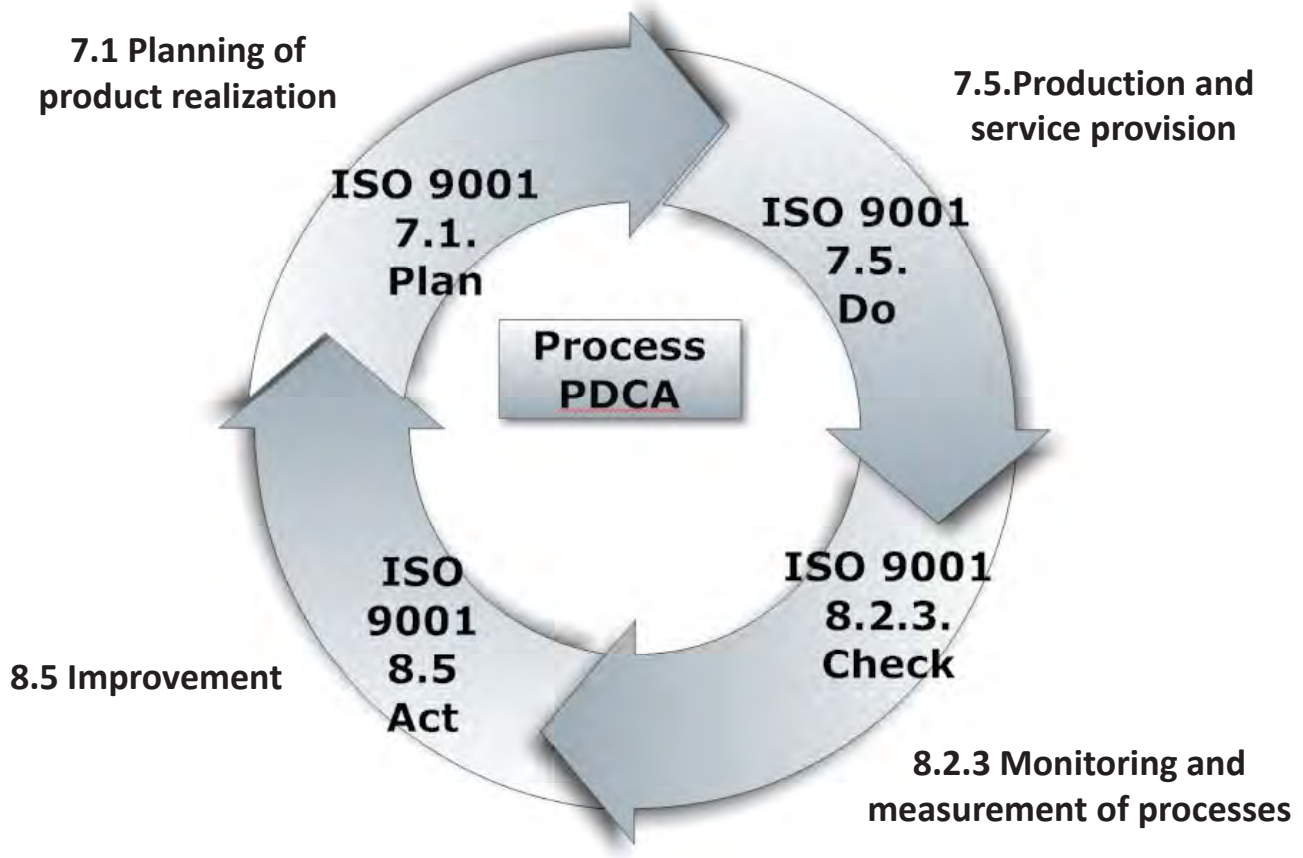


Fig.11 System PDCA

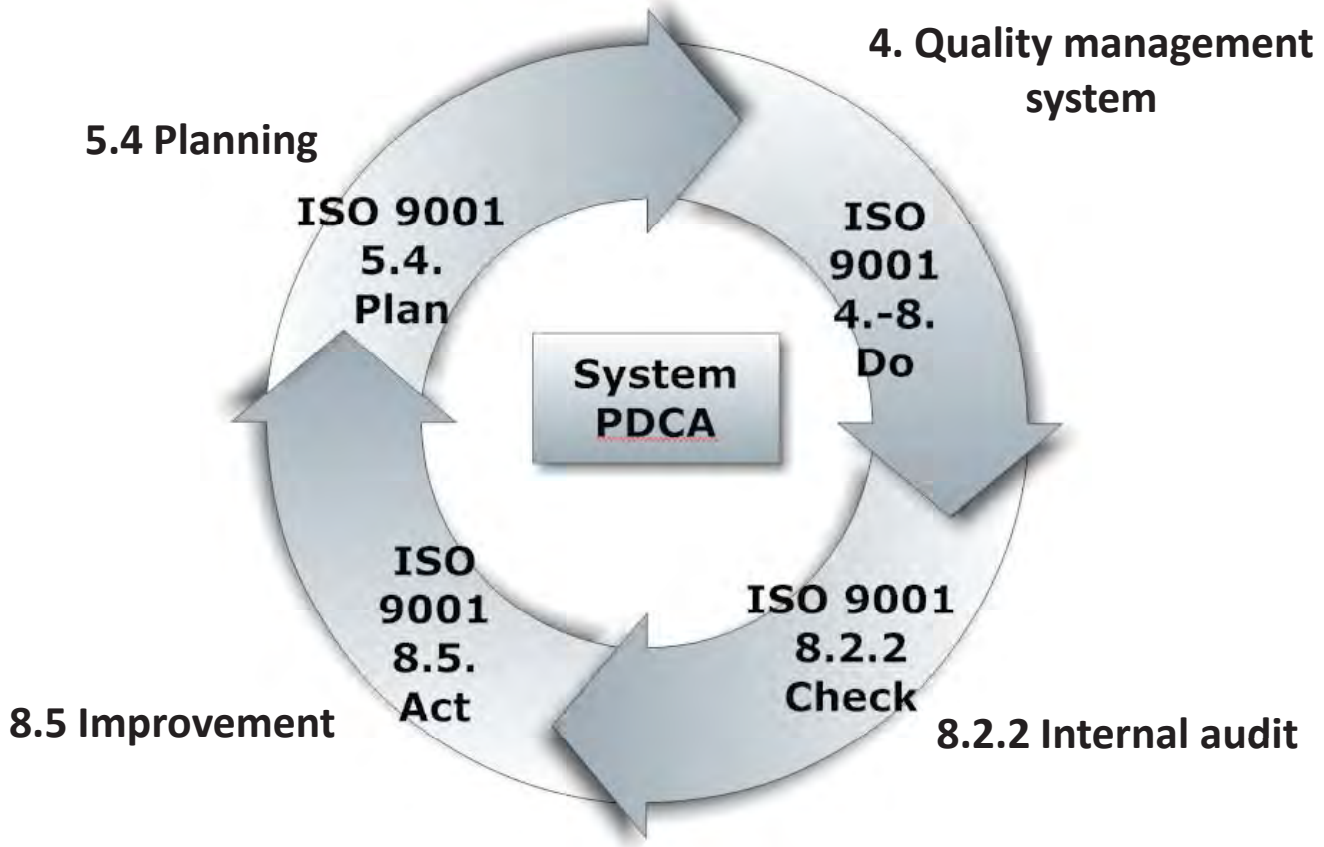


Fig.12 Customer focus PDCA

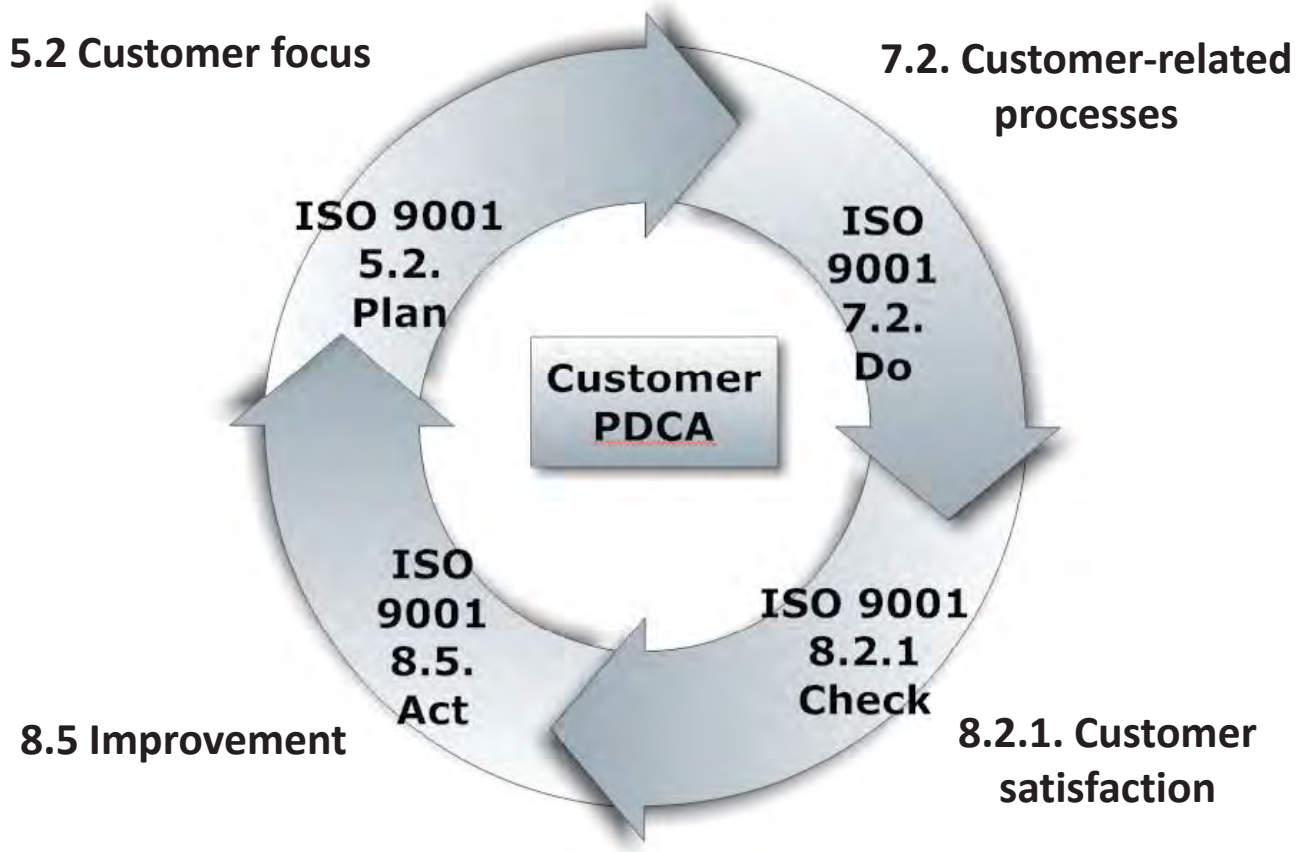


Fig.13 Integrated PDCA in ISO 9001

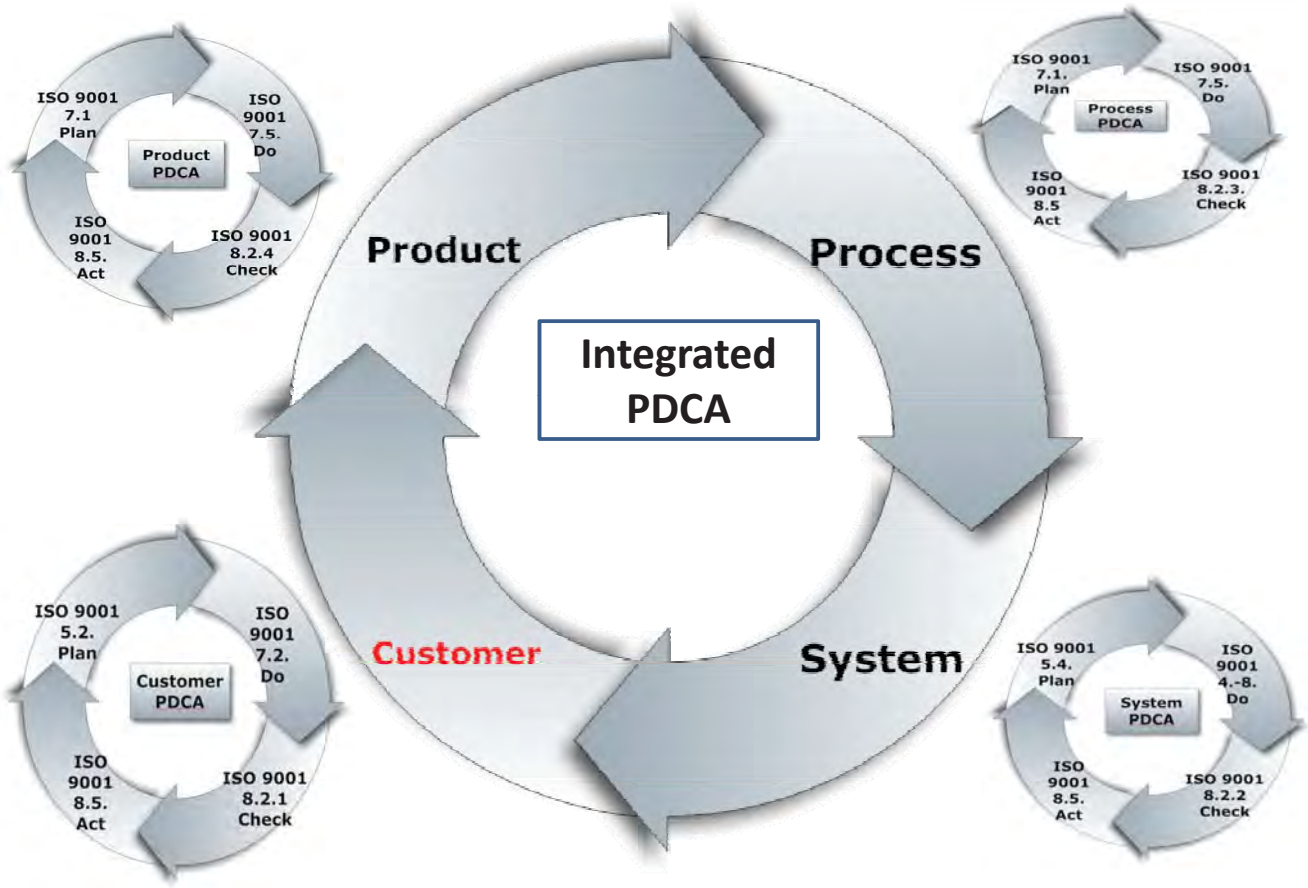


Fig.14 Integratrion of improvement steps and quality tools

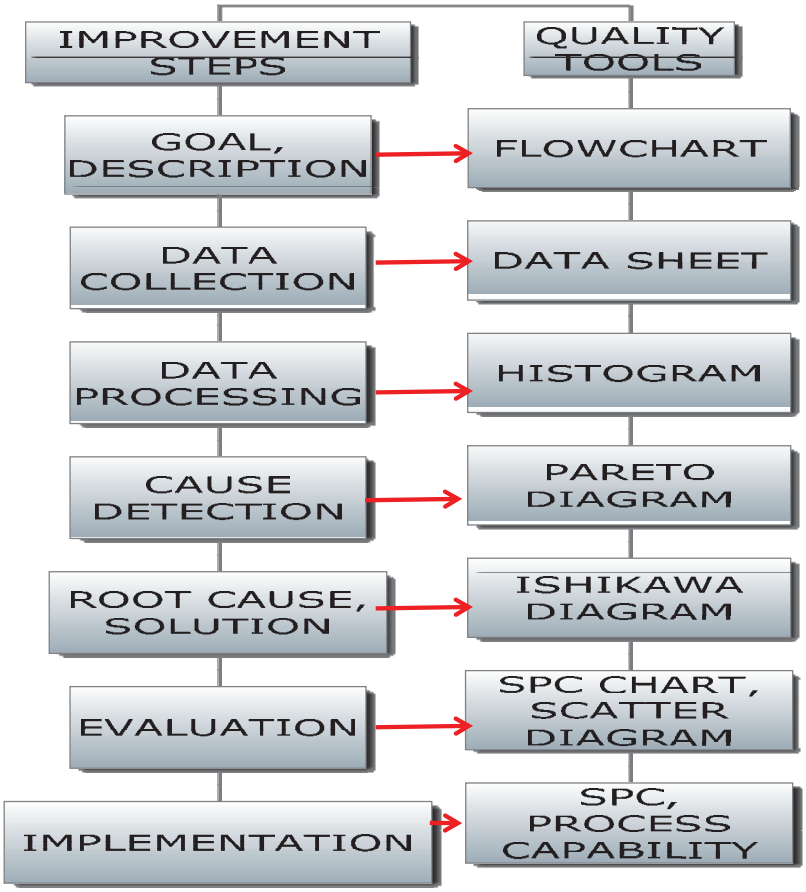


Fig.15 Home work - Time Management

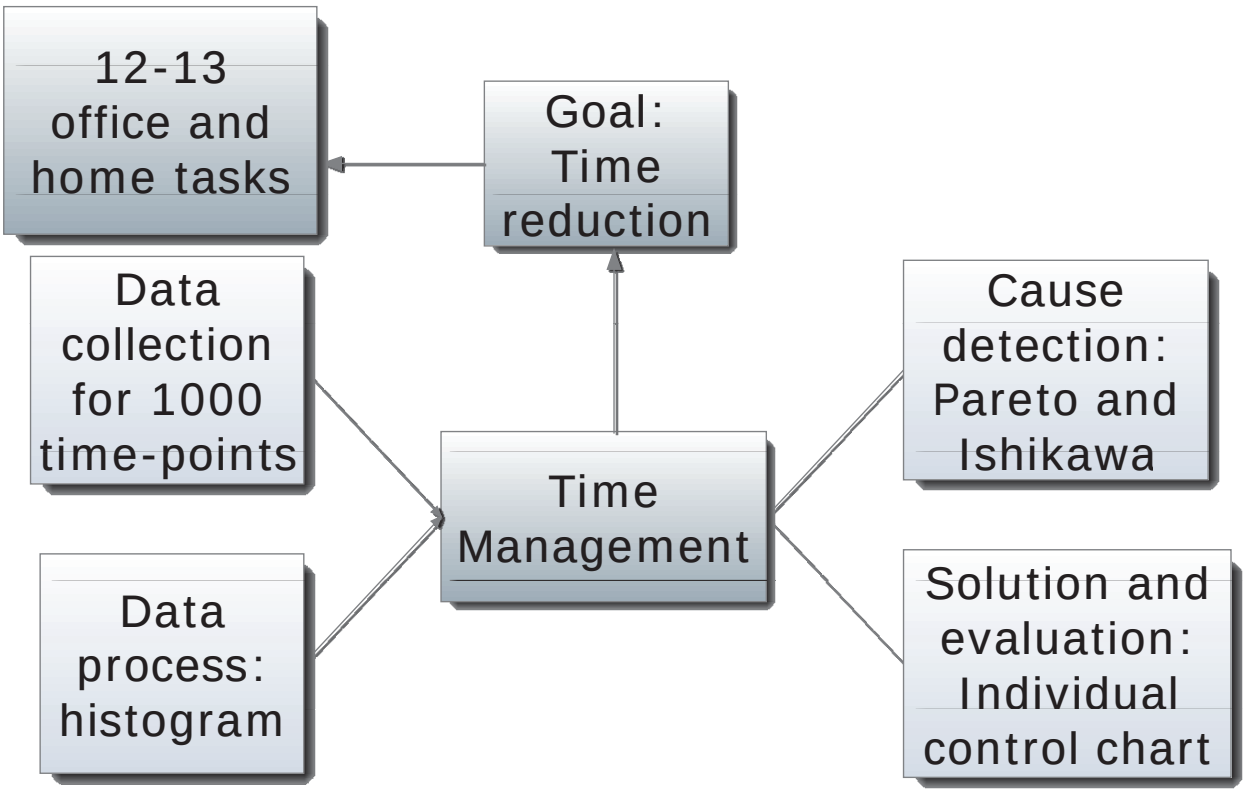


Fig.16

Time points for observation (25 observations per days) – 5 days in a week – 8 weeks -40 days – 1000 observations

Monday	Tuesday	Wednesday	Thursday	Friday
6.35	6.28	6.05	6.45	6.23
7.18	7.45	7.02	6.59.	7.32
8.12	10,43	9.45	7.58	9.43
9.34	11.02	10.32	8.39	10.21
11.14	12.31	11.09	9.06	10.49

Fig.17 Frequency analysis for home time management

Code	Activity	Frequency	Percents	Hours	Average hours per day	Goal hours per day
A	Watching TV	108	10,8	77,76	1,94	1,5
B	Sleeping	97	9,7	69,84	1,75	1,5
C	Leisure	70	7,0	50,40	1,26	1,0
D	Commuting to and from work	68	6,8	48,96	1,24	1,0
E	Meals at home	56	5,6	40,32	1,00	1,0
F	Housekeeping	51	5,1	36,72	0,92	0,9
G	Showers	43	4,3	30,96	0,77	0,8
H	Reading	40	4,0	28,8	0,72	1,5
I	Yardwork	33	3,3	23,76	0,59	0,7
J-K	Parties-Hobbies	30	3,0	21,60	0,54	0,8
L+M	Bills+Financial administration	4	0,4	2,88	0,07	0,1

Source: Patrick M. Courtney: Time Management Using Quality Tools, Quality Progress, 2005 August

Fig.18 Frequency analysis for office time management

Code	Activity	Frequency	Percents	Hours	Average hours per day	Goal hours per day
N	Phones, e-mails	52	5,2	37,44	0,94	0,5
O	Training preparation	48	4,8	34,56	0,865	1,5
P	Lunch and brake at work	48	4,8	34,56	0,865	0,6
Q	Measurement adminstration	44	4,4	31,68	0,79	0,8
R	General quality stuff	40	4,0	28,80	0,72	0,7
S	Statistical research	36	3,6	25,92	0,65	0,65
T	Quality management training	34	3,4	24,48	0,61	0,7
U	Staff meeting	28	2,8	20,16	0,5	0,5
V	Reading scientific papers	26	2,6	18,72	0,47	0,45
X	Travel	26	2,6	18,72	0,47	0,4
Y	Continuing education	18	1,8	12,96	0,32	0,4

Source: Patrick M. Courtney: Time Management Using Quality Tools, Quality Progress, 2005 August

Fig.19

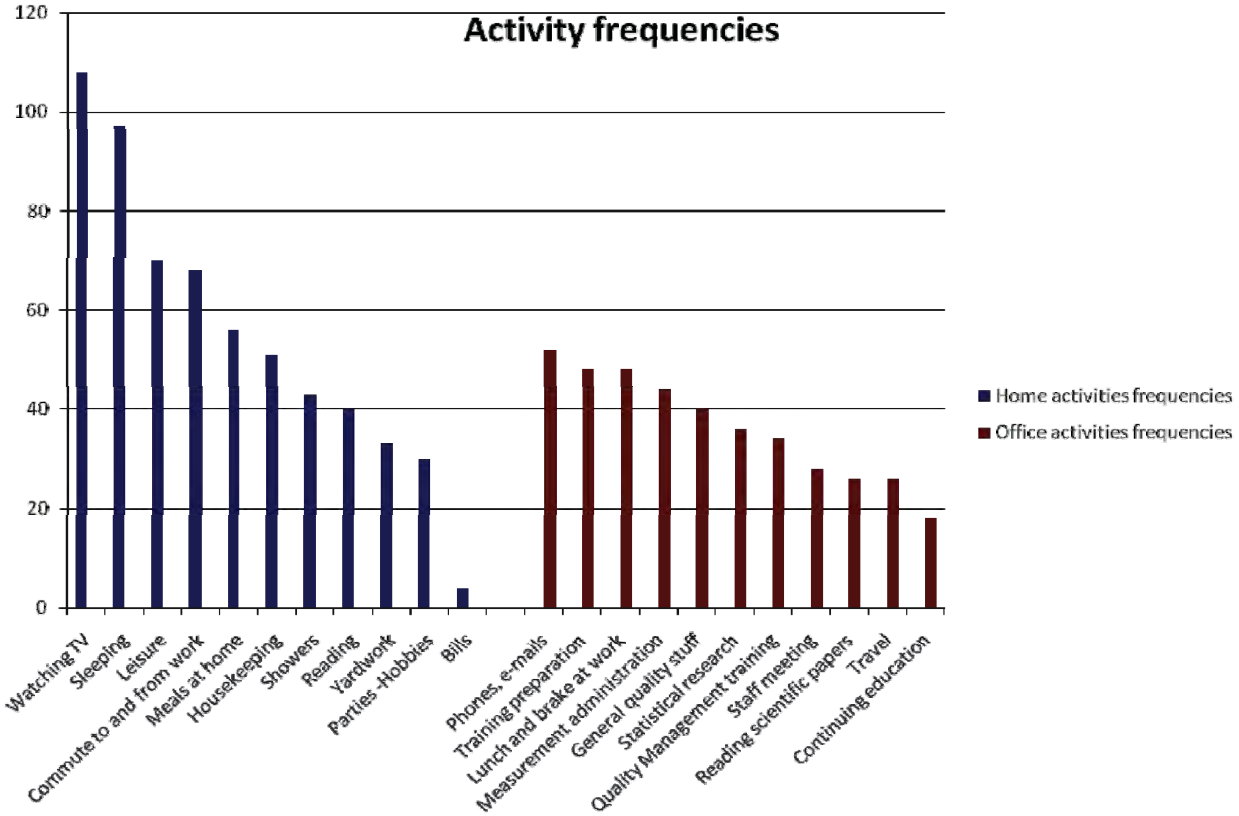


Fig.20 Individual control chart

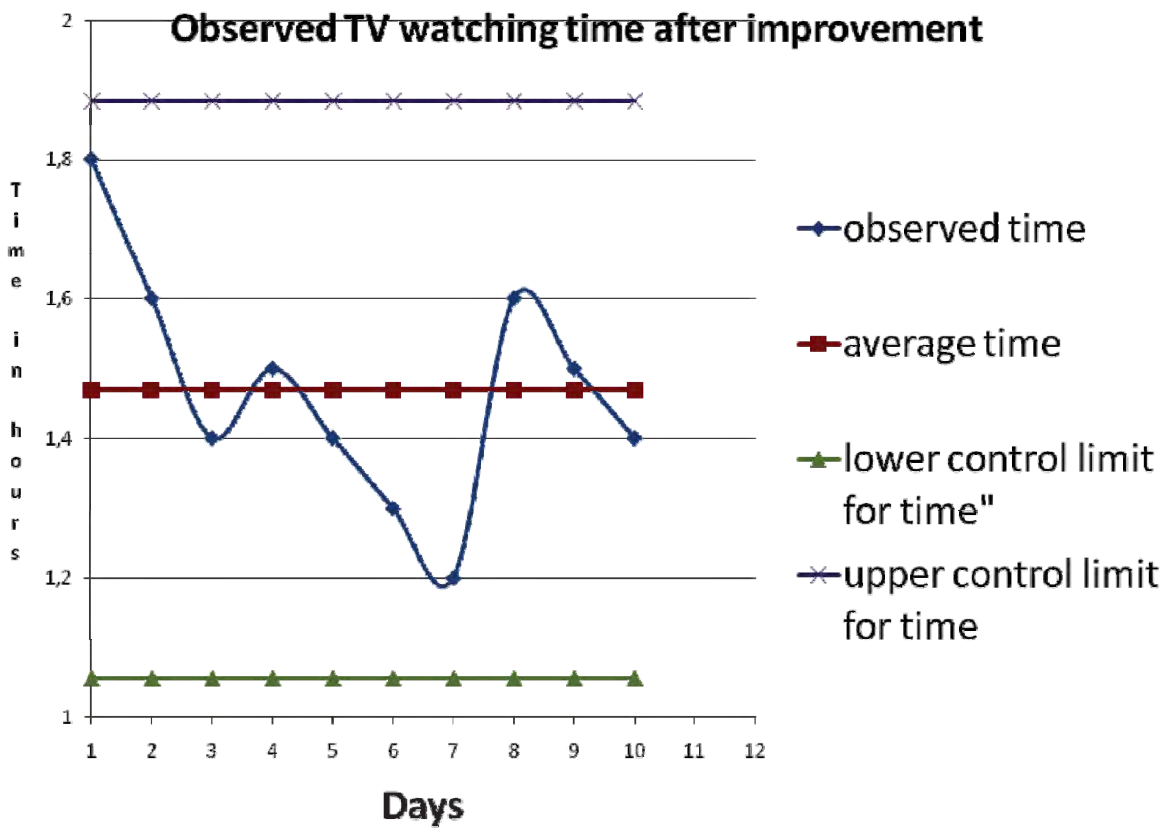


Fig.21

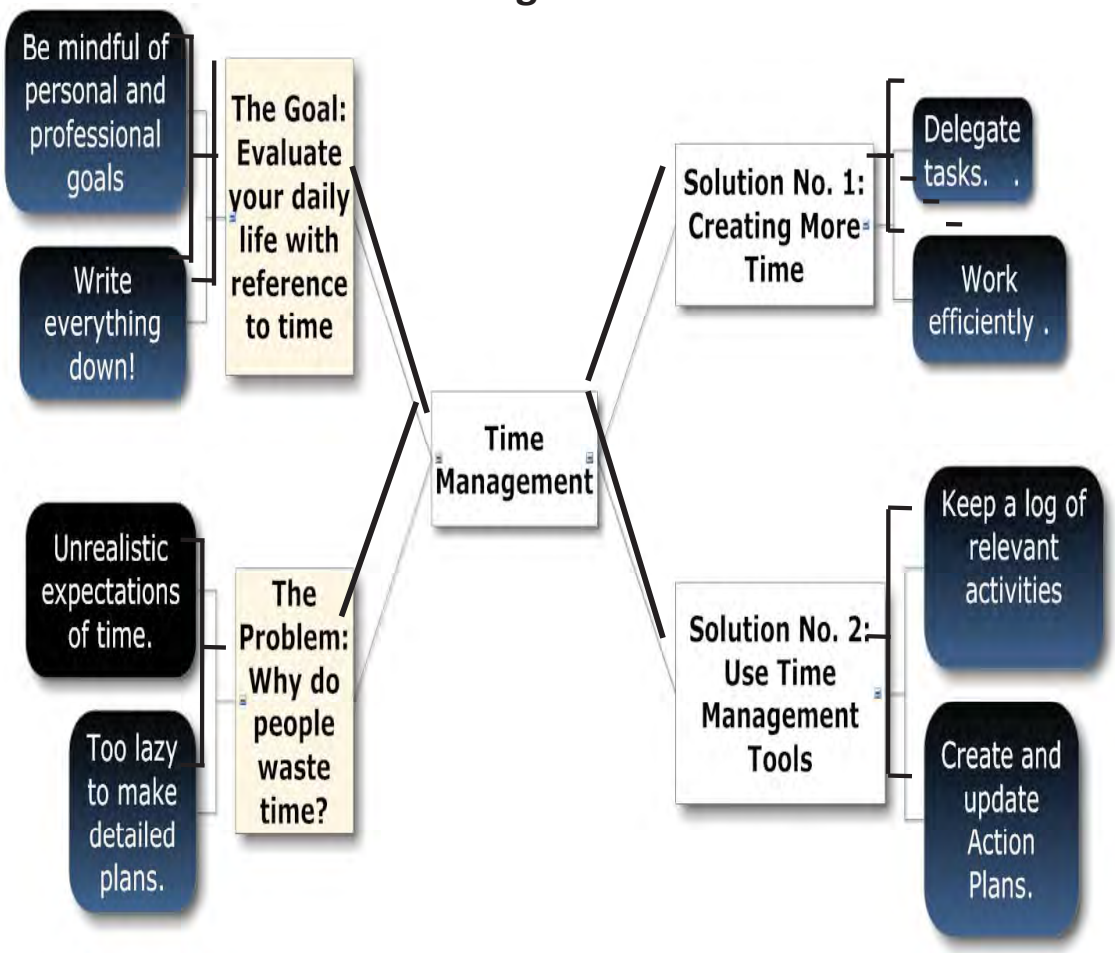


Fig.22

Use financial metrics to justify the cost of quality improvement for management!

Quality metrics

1. Mean
2. Standard deviation
3. Sigma level
4. DPMO
5. SPC charts
6. Process capability
7. Pareto diagram

Financial metrics

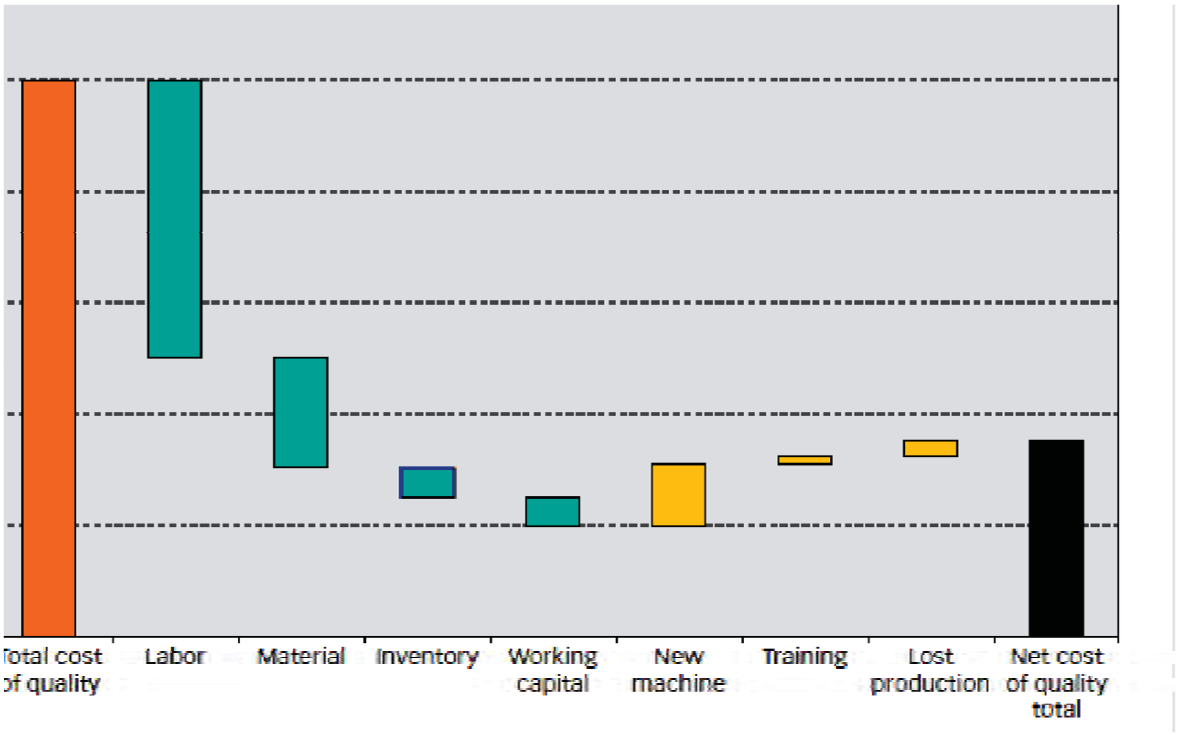
1. Revenues
2. Costs
3. Savings
4. Margins
5. Return On Investment (ROI)
6. Operating leverage (DOE)
7. Break even analysis

Income statement

Sleep?

Happy and satisfied

Fig.23 Project cost savings waterfall chart



Source: Peter J. Sherman and James G. Vono: All Ears, Quality Progress, 2009 July

Fig. 24 Break-even analysis

Key metric	PMO	FMO	Difference
Unit produced	10,000	10,000	NA
Retail price per unit	$120	$120	NA
Fixed costs	$395,000	$430,000	$35,000
Variable costs per unit	$58	$52	($6)
Break-even volume	**6,371**	**6,324**	**(47)**
Break-even revenue	**$764,520**	**$758,880**	**($5,640)**

PMO = present method of operation
FMO = future method of operation

Source: Peter J. Sherman and James G. Vono: All Ears, Quality Progress, 2009 July

Fig.25