

The importance of total quality management on achieving company's competitive advantage in hotels industry

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Abstract:

This paper has discussed the concept of total quality management and competitive advantage in aim to highlight the main dimensions that a company should focus on, such as; customer focus, continuous improvement, employee involvement, top management support..etc .

This paper has emphasized on the importance of implementing the total quality management principles in the company's strategy as a key secret on achieving its competitive advantage.by taking hotel sector-case of Djelfa city- as an example the statistical findings approved the research hypotheses of the relationship among the study variables

Keywords: Total quality management. TQM. Competitive advantage. Hotels. Djelfa

Jel Classification Codes: L22. M31.M10.L26. O39

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1. INTRODUCTION

Total Quality Management is the combination of the socio-technical process towards doing the right things (externally), everything right (internally) first time and all the time, with economic viability considered at each stage of each process. (Lakhe & Mohanty, 1994)

The study Problem The main discussed problem that our study is based on is: what is the role of total quality management on reaching Companies competitive advantage in hotel sector?

Research hypothesizes Starting from the principal question of the research; the study was built on a hypothesis that the total quality management plays a huge role on reaching the Companies competitive advantage at different hotels in Djelfa city. While the Sub-hypotheses are;

- H1. The Leadership/management's commitment has a role on achieving the Companies competitive advantage at the level of significance ($\alpha \leq 0.05$)".
- H2. Focus on customer has a role on achieving the Companies competitive advantage at the level of significance ($\alpha \leq 0.05$)".
- H3. The Involvement/empowerment of employees has a role on achieving the Companies competitive advantage at the level of significance ($\alpha \leq 0.05$)".
- H4. The Development/employees training has a role on achieving the Companies competitive advantage at the level of significance ($\alpha \leq 0.05$)".

- H5. The Quality/conception and product design has a role on achieving the Companies competitive advantage at the level of significance ($\alpha \leq 0.05$)".
- H6. Continuous improvement has a role on achieving the Companies competitive advantage at the level of significance ($\alpha \leq 0.05$)".

Research target and importance

The importance of the study is highlighted by the following points:

- ✓ The issue of total quality management is one of the topics that occupied the attention of researchers during recent years .
 - ✓ The effective role that TQM played in achieving the success of institutions.
- This study will contribute to shedding light on the aspiration of some economic institutions (hotels) in my city-Djelfa- in applying total quality management and achieve sustainable competitive advantages.
- The lack of studies that dealt with the issue of sustainability in the competitive advantage, especially those that are being studied the relationship and role of applying the principles of total quality management in achieving sustainable competitive advantage.

Research limitations and challenges

As it clearly said that we faced some difficulties within the case study of our study, such as :

- The difficulty of distributing and retrieving the questionnaire to all the hotels in Djelfa, and the rejection of some of them answer it.
- Since our study is in English we worked with two forms of questionnaire (Arabic /English), since we faced some difficulties in explaining all the key terms to the respondents due to their different educational background.

2. LITERATURE REVIEW

2.1. TQM (Japan vs. US)

Total Quality Management (TQM) is an enhancement to the traditional way of doing business. Total - Made up of the whole Quality - Degree of Excellence a Product or Service provides. Management - Art of handling, controlling, directing etc. TQM is the application of quantitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future.

Based on results achieved in Japan in creating a new quality paradigm, and in having Japan surpass the U'.S, in many products and services U.S. industry began paying more attention to th~ issue of quality as one of survival. U.S. industry began its own journey into quality in the late 1970s and early 1980s. (Anne Keenan & James R. , 1992)The eclectic concept of TQM comes from experts Deming, Juran, and Crosby and begins with defining quality as:

- Conformance to customer requirements and specifications.
- Fitness for use.
- Buyer satisfaction.
- Value at an affordable price

Integral to understanding and managing total quality are the ideas of customers (internal and external) who have requirements, suppliers who need to meet or exceed requirements,

processes of adding value; also the notion that mistakes cost money. It is ultimately more cost effective to "measure twice, cut once."

throughout the 1950s, "Made in Japan" was synonymous with poorly-made products. Today the phrase means the exact opposite. Japanese quality, technology and ingenuity are much sought after by consumers throughout the world. The primary source of their success is the implementation of total quality management in every walk of life. Efforts to study quality control in Japan started in 1949, when a special group was organized in the Union of Japanese Scientists and Engineers, with the purpose of providing an educational program to promote quality control in Japanese firms. (Lakhe & Mohanty, 1994) The period between 1955 and 1960 was designated the "Years of TQC". During that period, quality control activities were backed by top management and programs of company-wide quality control were launched.

In a remarkably short period of two decades, Japan has created a new paradigm, or belief system, for quality. The difference in quality perspectives from U.S. and Japanese businesses is shown in Table 1

Table1 Quality Perspectives of U.S. and Japanese Business

U.S Attitude	Japanese Attitude
"That's close enough"	"Right the first time"
"We're no worse than anyone else"	"Good enough is never good enough"
We're the experts so we'll tell them what they want	Find out what the customer wants and give them more"

Source Anne Keenan Widtfeldt, , James R. Widtfeldt, (1992) TQM in American Industry.P312

Historically, TQM was first emerged by the contributions of quality gurus, such as Deming and Juran in Japan after Second World War. Then Crosby, Feigenbaum, Ishikawa, and others had developed this powerful management technique for improving business quality within the organizations. During the period 1980s to 1990s, many national and international quality awards (QAs) have been established to provide guidelines for implementing TQM based on the suggestions and theories of TQM gurus. Guru means a "respected teacher", "spiritual leader", "good person", a wise person who in his field has not only made a great contribution and innovation, but also a large-scale revolution (Neyestani, 2017).(see table 2)

Table 2: TQM contributors (Gurus)

Pioneer	Year	Quality Management	Emphasis	Dominant Factors
W.E.Deming	1950	14 Principles in Quality, 7 deadly sins and diseases / PDCA.	Process	Control of variation
AV. Feigenbaum	1961	Concept: Make it right at the first time (One Basic TQM).	Process	Total quality control

Koaru Ishikawa	1979	Statistical Approach in Quality Control and Fishbone.	People	Company wide quality control/circles
Philip Crosby	1979	Top Management in Quality, 14 steps for quality improvement.	Performance	Zero defects
Joseph M. Juran	1988	Cost of the quality, SPC Quality, and Juran's quality triangle.	People	Fitness for purpose

Source ; Neyestani B. (2017, February). “Principles and Contributions of Total Quality Mangement (TQM) Gurus on Business Quality Improvement.”

1.2 Total Quality Management (TQM) Dimensions

Most of the researchers evaluate TQM through six dimensions; strategic planning, leadership, information and analysis, customer focus, process management and people management

However, majority of the researchers agree that the most significant dimensions of TQM are customer focus, continuous improvement, employee involvement and top management support (Shahid , Qadeer, & Aftab , 2014) .this study uses those most influential dimensions of TQM in order to investigate their relationship with organizational competitive advantage.

➤ Leadership/management’s commitment

In order for TQM to work effectively, the management should have a clear strategic overview of quality and guide the entire firm towards adopting TQM. TQM is more of a new mindset rather than a set of policies. Companies may need to invest time, financial resources and training for their existing staff especially if they have a strong organizational culture which could have a negative impact on the employees changing their attitude towards quality. (Arikkök, 2017)In order to increase business efficiency and product quality through TQM, the entire form should be committed from top to the toe. As the leaders of an organization, the senior management should show leadership and initiative and pass on the spirit down to the middle management who then will communicate the whole thing to their teams.

➤ A focus on the customer

Customer focus involves determining customer requirements and ensuring that processes exist to meet the requirements and achieve customer satisfaction. Enhance customer satisfaction by ensuring that customer requirements are identified. (Keen, 2022)The principal message that Top Management must convey is that the objective of the business is to satisfy your customers by ensuring a process exists to achieve the following:

- Identifying customer requirements
- Meeting customer requirements
- Enhancing customer satisfaction

➤ The involvement/empowerment of employees

Employee empowerment refers to the manner in which companies provide their employees with anything and everything they need to succeed. This involves far more than simple resource allocation, however. (Wong, 2020) Companies that are interested in empowering employees should act on the following:

- ✓ Give employees a voice by regularly soliciting and acting on their feedback.
- ✓ Provide opportunities for employees to grow through more autonomy, additional responsibilities, or even an entirely new role.
- ✓ Recognize employees frequently to increase their engagement and confidence in their own abilities.
- ✓ Provide employees with the tools, training, and authority they need to excel.

A company's leaders, HR professionals, and fellow employees all play key roles in establishing a supportive, empowered environment. All parties need to establish mutual trust, feel comfortable taking risks, and establish clear expectations and guidelines. Without this collaboration, truly empowering employees is impossible.

➤ ***Development/employees' training***

Employee training and development is a program that helps to learn a particular skill as well as knowledge to improve employee performance & productivity in their current organization or job role. It developed future performance & helps focused on more employee growth. It refers to any action that includes helping employees enhance their knowledge and skills or improve existing or acquire new skills is known as employee training and development. Development is gaining new information, abilities, or perspectives that equip employees with new directions and responsibilities. Training is just one form of employee learning; others include self-learning, informal learning, coaching, mentoring, and more. Employee training and development means investing energy, time, and resources that eventually improve the company's personnel. (Azmi, 2023)

➤ ***Quality/conception and product design***

At the product design stages, quality control is one of the most important activities as it ensures to achieve the design goal. The aim of product design quality control is to check the key aspects of design quality against a set of standards or specifications. (Chu, Suihuai, Chen, & Wang, 2010)

According to the relationship between Maslow's hierarchy of needs and emotion design, Bradley proposed a five-level design hierarchy of needs, including functionality, reliability, usability, proficiency and creativity. Most of the existing product design quality control approaches are used to ensure the lower levels of user needs, that is, functionality, reliability and usability. (Niu X, Qin S, Zhang H, Wang M, Wong R., 2018)

➤ ***Continuous improvement***

Kaizen (改善) comes from two Japanese words: Kai (improvement) and Zen (good), which translates to "continuous improvement". In business, Kaizen refers to activities that continually improve all functions and involve all employees from the CEO to the assembly line workers. Kaizen's strength comes from having all workers participate and make suggestions to improve the business. The purpose of Kaizen goes beyond simple

productivity improvement. When done correctly, the process humanizes the workplace, eliminates overly hard work, and teaches people how to spot and eliminate waste in business processes. (Doanh, 2017)

1.3 Competitive advantage

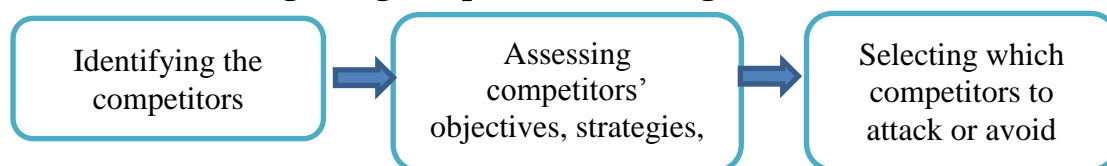
In order to achieve a clear understanding of the mechanism for shaping competitiveness, disclosure of its content and internal links, it is necessary to explore the essence of competitive advantages. A number of definitions of the nature of the competitive advantage are given in the scientific literature.

Under the marketing concept, Understanding customers is crucial, but it's not enough. Building profitable customer relationships and gaining competitive advantage requires delivering more value and satisfaction to target customers than competitors do. Customers will see competitive advantages as customer advantages, giving the company an edge over its competitors (Kotler & Armstrong, 2011)

Porter identified two main types of generic competitive advantages based on price advantage and differentiation. The advantages in price and differentiation are known as positional advantages as they originate from the positioning of the company in a predetermined and deliberately chosen industry of operation. The price advantage means to offer customers not only a lower cost, but also a higher value against the same price compared to competitors. The second type of competitive advantage is associated with differentiation of the company's proposal based on unique characteristics or higher efficiency. This is a situation where the company proposal satisfies user needs or solves consumer problems better than competitors' offerings do. (Yuleva, 2019). While the generic strategy of focus rests on the choice of a narrow competitive scope within an industry. The focuser selects a segment or group of segments in the industry and tailors its strategy to serving them to the exclusion of others. The focus strategy has two variants. (a) In cost focus a firm seeks a cost advantage in its target segment, while in (b) differentiation focus a firm seeks differentiation in its target segment. (Porter, 1985)

Figure 1 below clarifies the several steps in gaining a competitive advantage.

Figure 1 The basis for gaining competitive advantages



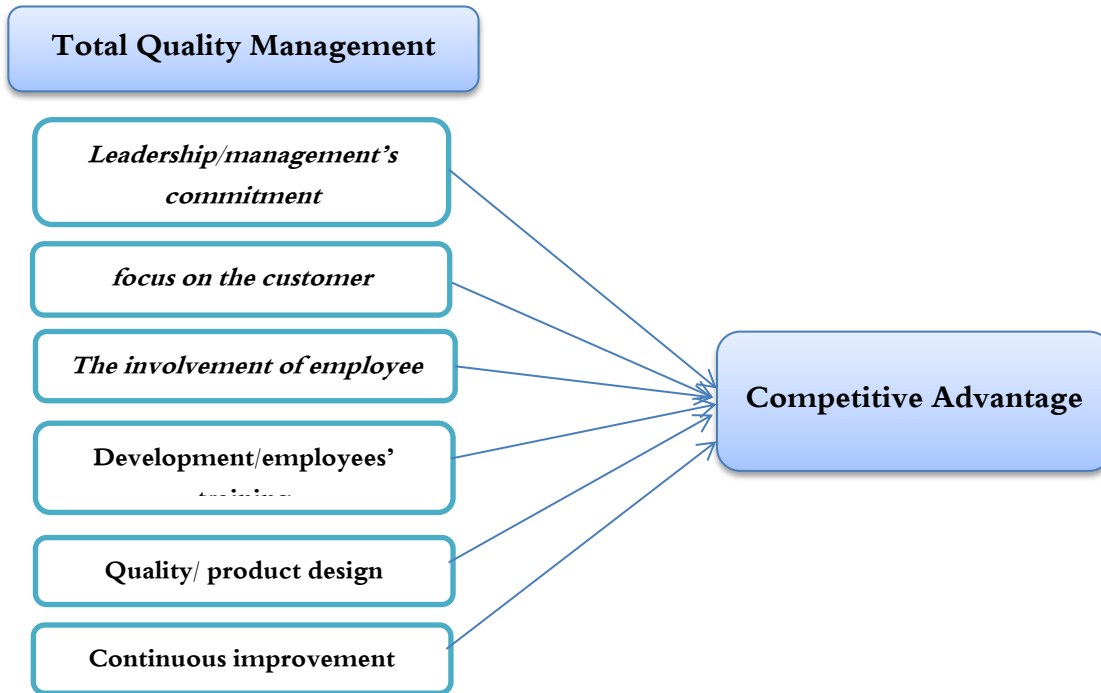
Source .Kotler principles of marketing .p529.

3. EXPERIMENTAL

Research model and framework

TQM includes a number of dimensions that have an influence on company's competitive advantage. The model was designed to show the TQM model with its dimensions as following (Leadership/management's commitment. Focus on customer. Involvement/empowerment of employees. Development/employees training. Quality/product design and Continuous improvement).

Figure 2 . Research Model and hypotheses .



Source . By author

Statistical methods: Statistical methods were used to analyze the data and test the hypotheses of the study: Stability test of the study tool., Correlation and regression test..etc

Data collection

In primary data we a survey –questionnaire- was used to collect the relevant data to study the impact of TQM on company’s competitive advantage in different hotels in Djelfa. Where the secondary sources of the research was collected from different sources; Books, reports, journals, research papers and the Internet. The study was conducted between 20/12/2022 to 27/01/2023, and targeted a group of hotels in the province of Djelfa (see table3). About 60 questionnaires were distributed, 56 were retrieved, and 50 questionnaires were approved for the statistical study. The questionnaire was designed to cover all the dimensions of the TQM.

Table 3 Case study detailed data

Case Study Hotels			
Asslouni Hotel			
Dar-Diaf Hotel			
Al-Amir Hotel			
Ajiad Hotel			
Questionnaires distributed	60		
Questionnaires retrieved	56	Questionnaires retrieved %	93.33%
Questionnaires canceled	04	Questionnaires canceled %	6.67%
Questionnaires approved	50	Questionnaires approved %	83.33%

Source .by author

4. RESULTS AND DISCUSSION

4.1 Validity

The Cronbach alpha test was used to measure the stability of internal consistency, all values were greater than 0.82, which is higher than the acceptable percentage for analysis (60 percent) it means that there is an excellent internal consistency and that the measurement instrument is reliable (Table 4).

Table 4 Cronbach's alpha results.

Dimensions	N of Questions	Cronbach's Alpha
Total quality management		
Leadership/management's commitment	06	0.897
Focus on customer	04	0.924
Involvement/empowerment of employees	04	0.859
Quality/conception and product design	04	0.735
Development/employees training	04	0.817
Continuous improvement	04	0.742
Competitive advantage	<i>07</i>	<i>0.851</i>
Total	33	0.826

Source : By Author depends on SPSS data

4.2 Statistical data analysis

The table5 below presents some variables' measures of our statistical study, it clear that the variable "Leadership/management's commitment" has a lower average value (M = 3.36) compared to the others and "Continuous Improvement" has a higher average value (M = 3.90). The variable Development/employees had the highest standard deviation. (0.656).

While the mean of the total quality management reached 3.44 and the standard deviation was0.428which reflect a positive relationship among study variables.

In order to find out the extent of the relationship between total quality management and sustainable competitive advantage in our case study' companies we used Pearson correlation coefficient.as it showed in the table below the results were as following;

- The results of the statistical analysis showed a statistically significant weak effect of the Leadership/management's commitment on competitive advantage, the correlation coefficient reached 0. 251 and the coefficient of determination 0.063, which means only 6.30% of competitive advantage is due to hotels leadership/management's commitment.
- Focus on customer comes as the highest level of effect relationship, while the correlation coefficient was 0.8 91 and the coefficient of determination 0.793, which means only 79.3% of competitive advantage is due to Focus on customer dimension .
- Continuous improvement dimension ranked in the third place, the correlation coefficient was 0.659 and the coefficient of determination 0.434, reflects a percentage of which means only 43.4% of effect percentage.
- The other total quality management' dimensions: Involvement/empowerment of employees, Development/employees training and Quality/conception and product

design were almost on similar levels by 15.4%, 22.1% and 14% .

Table 5 study primary results.

	Mean	Std, Deviation	R	R Square
Leadership/management's commitment	3.36	0.497	.251	0.063
Focus on customer	3.81	0.564	.891	0.793
Involvement/empowerment of employees	3.60	0.612	.393	0.154
Development/employees training	3.49	0.656	.470	0.221
Quality/conception and product design	3.51	0.508	.375	0.140
Continuous improvement	3.90	0.476	.659	0.434
Total Quality Management	3.44	0.428	.678	0.478

Source : By Author depends on SPSS data

4.3 Study' Hypotheses test results

From the results showed in table6 below, we come out with the following decisions;

- As the calculated F value for TQM reached 9.887 It is a statistically accepted at a significance level of ($\alpha \leq 0.05$) And since the level of significance Sig 0.000 is less than 0.05, therefore we accept the principal hypothesis: There is a role for TQM in achieving company's competitive advantage at the studied companies. At the level of significance. ($\alpha \leq 0.05$)
- For the other total quality management' dimensions (Leadership/management's commitment. Focus on customer. Involvement/empowerment of employees. Development/employees training. Quality/product design and Continuous improvement) F value for TQM reached (7.413/ 12.186/ 21.771/ 18.425/31.285 and 6.341). It is a statistically accepted at a significance level of ($\alpha \leq 0.05$) and since the level of significance Sig (.001/ 0.000 and .004) for all dimensions is less than 0.05, therefore we accept Sub-hypotheses: There is a role for TQM' dimensions in achieving company's competitive advantage at the studied companies. At the level of significance. ($\alpha \leq 0.05$)

Table6 ANOVA results test

	F	Sig.	H Test Decision
Leadership/management's commitment	7.413	.001	
Focus on customer	12.186	.000	Accepted
Involvement/empowerment of employees	21.771	.000	Accepted
Development/employees training	18.425	.001	Accepted
Quality/conception and product design	31.285	.004	Accepted
Continuous improvement	6.341	.000	Accepted
Total Quality Management	9.887	.000	Accepted

Source : By Author depends on SPSS data

5. CONCLUSION

This study discussed the importance of TQM as a crucial factor in achieving the companies' competitive advantages. From this viewpoint, the effects of TQM on competitive advantage are explained through the statistical data we get from the case study hotels. The concept of TQM is based on a perspective of continuous improvement and Focus on customer, with repercussions on the different dimensions that can be found within a business such as; Leadership/management's commitment, Involvement/empowerment of employees. Development/employees training And Quality/product design.

Case study' findings and suggestions;

- The level of interest of the institutions under study in total quality management is medium. While the two dimensions of continuous improvement and Focus on customer come at top levels compared to other dimensions.
- The studied hotels in Djelfa give great importance to customer satisfaction with the products and services offered.
- From the data we get about the involvement of employees in decision-making; it is somewhat weak and not enough to increase employees' satisfaction.
- In some cases the leadership management focuses on the over spending more than the quality of products/services offered.
- The application of total quality management in hotel establishments as a modern strategic management trend in Algeria in general, and in particular in Djelfa, is still in its primary stages. For this the decision makers in these companies should give more importance and concern about the role that can TQM mechanisms play on achieving the competitive advantage.

From research findings above we can come out with some suggestions;

- Give more attention to employee satisfaction as the critical element in the success of the application of total quality management.
- Support the teamwork in the institutions under study due to its great role in facilitating the work flow and fast product providing with less time lost.
- Establishing a rewards and incentives system to encourage workers to produce with high quality.
- Increase the employee' empowerment and give more importance to customers' feedback about the products offered by the enterprises under study.
- The need to pay attention to the continuous development and improvement of all activities, especially in light of the challenges of the era speed, technology and knowledge economy;
- Carrying out a periodic study of the market to know more precisely the desires and needs of customers;
- The imperative to provide training for all workers at all levels, and developing training programs based on clear scientific foundations that can help on increasing quality of products and services offered by the Hotels.
- The need to provide effective techniques and means of communication and E-

marketing that facilitate the preservation of information and decision-making, and the customers' attraction.

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7. Appendix1

In the context of preparing a scientific study in the form of a scientific article intended for publication on "*The Role of Total Quality Management in Enhancing the Competitiveness of Hotel Establishments - A Case Study of a Group of Hotel Establishments in Djelfa-*", please kindly read the questionnaire carefully, and answer all its paragraphs accurately, by marking (X) in the appropriate option for your answer. Note that the information that will be collected through your answer will be kept strictly confidential and will be used for scientific research purposes only.

Part 1. Personal and general data

Put an (X) in the appropriate box:

1- Gender:

Male. Female

2- Age:

Less than 30 years old. From 30 to less than 40 years old
 From 40 to less than 50 years old. 50 years and over

3- Academic level:

less than secondary. secondary. college. Postgraduate

4- Professional experience: years

	<i>Total disagree</i>	<i>disagree</i>	<i>neutral</i>	<i>agree</i>	<i>Total agree</i>
<i>Leadership/management's commitment</i>					
Management/top management considers quality more important than cost.					
The employees of your organization are held accountable in the event of a failure to provide good quality services.					
The administration offers bonuses and incentives (material or moral) to employees to encourage them to provide services with high quality.					
The performance appraisal determined by the top management is highly dependent on quality.					
Top management provides sufficient resources for quality improvement					
There are clearly defined quality objectives by the top management.					
<i>focus on the customer</i>					
Your organization studies evaluation results related to customer satisfaction.					
Your organization is regularly interested in information regarding customer complaints.					
To achieve higher levels of customer satisfaction, your organization looks for ways to improve its products/services, and to meet customers' needs and preferences.					
Your organization conducts a periodic study of the market and compares its products with competitors in the same field.					
<i>The involvement/empowerment of employee</i>					
Your organization often uses a special teamwork to improve quality.					
Your organization provides a platform for problem solving and consultation available to employees.					
The management of your organization involves workers in decision-making.					
Most of staff suggestions to improve quality are taken					

into account					
<i>Development/employees' training</i>					
Your organization provides all the necessary resources to train employees in the field of quality.					
High-quality training courses designed for employees are often conducted.					
The type of training was determined in light of the required skills.					
The management seeks through training programs to develop the skills of employees					
<i>Quality/conception and product design</i>					
The organization conducts a detailed review of the quality of products and services before they are offered.					
The quality department is directly involved in the design process for products and services offered to customers.					
Your organization considers the quality of products and services to be more important than costs.					
The organization uses the best quality materials in designing its products and the best technology / processes in providing its services.					
<i>Continuous improvement</i>					
Your organization has a research and development department.					
There is a strong commitment to continuous improvement at all levels of the organization.					
In your organization, the quality improvement programs that aim to reduce waste, promote better use of resources, and ensure that activities that do not create added value are eliminated					
In your organization, continuous improvement is a way to gain a competitive advantage over competitors.					
<i>Competitive advantage</i>					
Your organization exercises tight control over spending.					
Your organization works to provide lower prices than competitors' prices					
Your organization is working to avoid business errors in order to reduce costs.					
Your organization seeks to continuously reduce production costs.					
Your organization is working hard to distinguish the goods and services provided in the market, which are different from those offered by competitors.					
The information technology used in your organization helps to improve the quality of services in line with the desires of consumers.					
Your organization takes quick action when the needs of its customers change					