

# From 'Ivory Tower' to 'Service Station' : A University's Quality Journey

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*The role of higher educational institutions has transited from autonomy to accountability. Many universities have sought to improve performance and enhance their competitiveness by applying the National Quality Award based on the theory of Total Quality Management (TQM). In this paper is Tamkang university's journey to implement the TQM and obtain the highest quality honor. Data for this study was collected by internal documents and semi-structured interviews with top management who have involved in the process of applying the award. Some key issues that have been addressed by the case study can be summarized as: leadership, a long time implementation of TQM, top management commitment, employee involvement, and training. The issues of benefits perceived and quality progress of the university are also presented in this paper. The findings of this research will provide some insight into the implementation of TQM in higher educational institutions.*

**Keywords:** National Quality Award, higher education, TQM, case study

## Introduction

Quality has been an important competitive strategy of organizations, especially since the 1980s when globalization became reality (Lee, Zuckweiler, & Trimi, 2006). Quality Management and performance excellence have become major issue in higher educational institutions in many countries. Many higher educational institutions apply TQM to get improved and enhance competition. The highest quality evidence is to obtain their National Quality Award (NQA). Zink (1996) states the NQA for TQM can serve as a basis for regular assessments of the organization's current situation and as a way of monitoring progress.

Governments and companies recognize the emergence of quality consciousness worldwide, and that quality is crucial for gaining a competitive advantage international. Many countries set NQAs to enhance their organizations' competitiveness and promote quality awareness. In the short history of the

development of NQAs, three awards have played a key role in the quality revolution in Japan, west Europe, and the USA (Tan, 2002). Japan is the first country to set their NQA-the Deming Prize (DP) in 1954. America established the Malcolm Baldrige National Quality Award in 1987. The European Quality Award (EQA) was founded in 1989 (Zink, 1996).

Taiwan also established the National Quality Award in 1990. Until now, three universities obtained the NQA like the USA. The purpose of this paper focuses on the experience of the second winner, Tamkang University's journey to apply TQM and how to be the winner of the NQA.

## **Literature Review**

TQM was found to have the largest number of historical applications in higher education (Quinn et al., 2009). Many higher educational Institutions try to win the highest quality award to enhance their competitiveness and excellence.

### **Total quality management in higher education**

TQM is a style of management that has worked in manufacturing industry for several decades overseas. Some colleges and universities recognize that TQM values are more compatible with higher education than many existing management systems. Although putting TQM to work in a university setting has proved challenging, no one would admit wanting to maintain the current quality of programs and services—not because the quality is poor or mediocre but because it is somehow unacceptable not to be striving always for “excellence”. Higher education and industry hold the same values as the importance of people, knowledge, and continuing improvement (Sherr & Lozier, 1992; Coate, L. E., 1992; DeCosmo, Parker, & Heverly, 1992).

### **Three major awards for quality programs**

The Deming Prize of Japan focuses on the application of statistical techniques that control processes. The Malcolm Baldrige National Award in the United States has a broad emphasis on customer satisfaction through implementation of TQM. The European Quality Award in Western Europe is broader still, because it examines the impact of quality not only on a company itself but on that company's social and environmental community (Nakhai & Neves, 1994).

#### ***The Deming Prize***

The Deming Prize is the oldest quality award instituted in 1951 by the Union of Japanese Scientists and Engineers (Kumar, 2007). It was in commemoration of the late Dr. William Edwards Deming who contributed greatly to Japan's proliferation of statistical quality control after the World War II. His teachings helped Japan build its foundation by which the level of Japan's product quality has been recognized as the highest in the world. The categories of the Deming Prize are the Deming Prize for Individuals, the Deming Distinguished Service Award for Dissemination and Promotion (Overseas) and the Deming Application Prize (The Deming Prize Guide, n.d.). There's no educational institution in the winner list until now.

The Examination Viewpoint of the Deming Application Prize includes:

- Top Management Leadership, Vision, Strategies
- TQM Frameworks
- Quality Assurance Systems
- Management Systems for Business Elements
- Human Resource Development
- Effective Utilization of Information
- TQM Concepts and Values
- Scientific Methods
- Organizational Powers (Core Technology, Speed, Vitality)
- Contribution to Realization of Corporate Objectives

***Malcolm Baldrige National Quality Award (MBNQA)***

In 1987, the U. S. Congress created the MBNQA to encourage organizations to deploy quality as a competitive strategy (Lee, Zuckweiler, & Trimi, 2006). The Criteria work as an integrated framework for managing an organization. They are leadership, strategic planning, customer focus, measurement, analysis, and knowledge management, workforce focus, process management, and results. There are three versions of the Criteria for Performance Excellence: business/nonprofit, education, and health care (Criteria for Performance Excellence, 2010).

Wilson & Collier (2000) test the theory and causal performance linkages implied by the MBNQA and conclude that (1) The underlying theory of the MBNQA is supported that “leadership drives the system that causes results”; (2) Leadership is the most important driver of system performance.

The MBNQA includes five categories: Manufacturing, Small Business, Health Care, Nonprofit, and Education. Three higher educational institutions got the award until now (Table 1).

Table 1 MBNQA winners in higher education

school	year
University of Wisconsin-Stout	2001
Kenneth W. Monfort College of Business	2004
Richland College	2005

***The European Quality Award***

In 1988, responding to the quick success of the Baldrige Award, 14 large European multinational corporations formed the EFQM to promote TQM principles in Western European countries. EFQM established the European Quality Prize and the EQA with the support of the Europe Organization for Quality and the European Commission in 1991(Nakhai & Neves, 1994). EFQM brings organizations together to strive for sustainable excellence. Seven higher educational institutions obtained the winner until now (Table 2).

Table 2 EFQM Excellence Award winners in higher education

Prize category	school	year
Finalist	Marmara University - Faculty of	2000

Prize category	school	year
	Engineering(Turkey)	
	City Technology College, Kinghurst(UK)	2001
	Stavropol State Agrarian University(Russia)	2008
	Liverpool John Moores University(UK)	2009
Prize Winner in Leadership and Constancy of Purpose	St. Colman's College, Violet Hill(Northern Ireland)	2009
Award winner & PW	Runshaw College(UK)	2003
Award winner	St Mary's College Northern Ireland(UK)	2001

Resource: EFQM Excellence Award-Past winners  
<http://www.efqm.org/en/PdfResources/EFQM%20Excellence%20Award%20-%20History%20and%20Past%20winners.pdf>

### The NQA in Taiwan

The Ministry of Economic Affairs' National Quality Award recognizes "best quality practice" in Taiwan. The mission is to establish a highest quality control paragon for corporations and organizations to enhance competitiveness. Award criteria (<http://proj3.moeaidb.gov.tw/nqa/eng/main.htm>) include:

- Leadership
- Strategic management
- Research and innovation
- Customer and market focus
- Human resource and knowledge management
- Information strategy, application and management
- Process management
- Business result

Organizations must complete an extensive application and selection process before being named National Quality Award Recipients. Awards are given in five categories (corporate, mid-and-small business, organization, individual, and distinguished contribution) per year. There's no education categories so the higher educational institution is included in the organization category added in 2002. The institutions for higher education have to compete with other kinds of organizations. Under threat, organizations learn quickly and TKU was no exception. TKU was the second university of the three higher educational institutions in Taiwan (Table 3).

Table 3 TNQA winners in higher education

school	year
Yuan Ze University	2005
Tamkang University	2009
Taipei Medical University	2010

### The brief history of Tamkang University

Every institution of higher education has a unique mission and organizational model. Tamkang is the first university that implements TQM in Taiwan. It was initiated as a junior college of English in 1950, and became Tamkang College of Arts and Sciences in 1958 before being renamed as Tamkang University in 1980. For nearly 60 years since its foundation, the University now consists of 4 campuses, 11 colleges, 17 doctoral programs, 50 graduate programs and 50 departments, with a total of more than 28,000 students, 2,200-plus faculty and staff members, and more than 220,000 alumni. Tamkang has developed from a regional junior college into the best comprehensive private university in Taiwan (Tamkang University, 2010).

With regard to the governance of the University, total quality management is one of the major principles applied from 1992. In 2005, Tamkang won the first place in the 2003-2004 University Evaluation conducted by the Ministry of Education. Moreover, in the 2010 “Top 1,000 Enterprises’ Favorite College Graduates” survey, conducted by Cheers business magazine, Tamkang also ranked first among all private universities in Taiwan, an honor it has won for thirteen consecutive years.

In 2009 is the third time that Tamkang applied for the National Quality Award in Taiwan, with the continuous improvement and effort, it was the winner of the 19<sup>th</sup>. Winning the honor of this award is not the end but is taken as a way to implement administrative development and engender competitiveness (“Reflection”, 2009).

### **Planning and implementation of TQM**

TKU is the first university in Taiwan to employ the principle of TQM, as it introduced this and set up the Committee of Educational Quality Management in 1992. From 1999, TKU held Total Quality Management Seminar very year. In 2006, the Tamkang Quality Award was initiated to recognize outstanding campus units fully committed to TQM. It has generated impressive results and is applauded by the public. Dr. Clement C. P. Chang, Founder of TKU, introduce the concept of TQM to Tamkang in 1992 to improve the management mode of the school. The process of implementing TQM in Tamkang can be divided into four phases (“Reflection”, 2009):

#### ***Phase one-1993 to 1995: Introduction***

The purpose of phase one was to formulate the scheme of TQM by the leaders, establishing Educational Quality Control Committee, holding the “Total Quality Management Seminar” to carry out educational training, and expediting information management.

#### ***Phase two-1995 to 1998: Grounding***

Establishing quality control policy, asking academic and administrative units to carry out TQM according to the logical steps of “PDCA”, as well as focusing on team cooperation and participation.

#### ***Phase three-1998 to 2001: Development***

Establishing evaluation and award system to evaluate the effect of TQM and award the persons and units that promote TQM, and cultivating the culture improvement, elevation of educational quality, and customer satisfaction.

#### ***Phase four-after 2001: Improvement***

Applying for national and international certificates related to quality management, establishing Tamkang Quality Award, pursuing excellent educational achievement, and elevating social appreciation.

In 2006, to visualize the management objectives, TKU established the so-called “House of Quality”, which stipulates mission and vision, values, strategies, and governance as the skeletons of administrative infrastructure.

Tamkang has implemented TQM for more than 17 years. TQM is about continuous improvement of quality. On the basis of the six key principles of TQM, including “management commitment”, “employee involvement and empowerment”, “line management”, “fact-based decision making”, “customer focus”, “continuous improvement” (“Reflection”, 2009). This was not a simple process. There’s no beginning, middle and end. Any organization was looking at years of effort before the benefits would be fully appreciated (Doherty, 1993). And TQM culture change would not be effective unless it was supported ‘from the top’ first.

## Methodology

Case study research is a strategy aimed at understanding an event in its real-life context (Yin, 1994), and so is suitable when trying to answer the ‘how’ and ‘why’ questions of research. Data for this study was collected by internal documents and semi-structured interviews with top management who have involved in the process of applying the award, based on the award criteria of the TNQA. Ten core people agree with this interview (see table 3), and the data was analyzed by NVIVO 8.0.

Table 3 Interviewee’s background

Number	Position in TKU	Responsibility in applying the NQA
01C	president	leader
02H	Secretary - General, Office of the Secretariate	•Leadership •oral presentation
03K	Director, Office of Research and Development	•Research and innovation •oral presentation
04G	Office of Academic Affairs	•Customer and market focus •oral presentation
05H	Director, Information Processing Center	• Information strategy, application and management •oral presentation
06H	Director, Chueh Sheng Memorial Library	•Process management •oral presentation
07C	Director, Personnel Office	• Human resource and knowledge management •oral presentation
08K	Dean, College of Education	•Strategic management •oral presentation
09H	Dean, College of Business	•Customer and market focus •oral presentation
10H	Chair, Department of Business Administration	• Human resource and knowledge management •on-site visit unit
11K	Vice president of Administration	•Business result

The interview guide is as following:

- What's the important process in promoting TQM in a university
- What's your opinion about the major benefit in the process of applying the National Quality Award for TKU?
- What the benefit constructs of the National Quality Award's criteria to higher educational institutions? What constructs can't be applied in higher educational institutions directly?
- Because the Taiwan National Quality Award is set for business, is there any confusion in performing in higher educational institutions?
- According to your experience, what's the important part when planning on-site visit?
- What's the key reason for winning the NQA?
- What's the main reason for the past failure to apply the NQA in TKU?
- What's the greatest gain to win the NQA for school?
- What's your expectation after winning the NQA for a university?
- Will you suggest other university to apply the NQA?

## **Findings**

### **\*The important process in promoting TQM in TKU**

TQM has been promoted in TKU for more than 17 years. In the beginning, the Founder of TKU, Dr. Clement C. P. Chang's idea was to have a better quality, not for applying the NQA. The first step was to build quality culture. TQM culture change would not be effective unless it was supported 'from the top' first (Doherty, 1993). The second is to make administrative document standardization. The third is customer focus.

'the most important part for TQM is the process...seldom organizations win the award at one time...(01C)'

'it's been a very long time to promote quality management in TKU...(03K)'

Implementation requires patience (DeCosmo, Parker, & Heverly, 1992). If we practice TQM over a period of time—not next week, not next year, but over a five-to-ten-year period—we will see significant improvements (Sherr & Lozier, 1992). Top management must show constancy of purpose to convince others that TQM can and will happen and that it is not just the latest management fad.

### **\*The major benefits of applying and winning the NQA for school management.**

The NQA is based on the theory of TQM, school which apply the award can understand themselves better through TQM approaches and have a good chance to do self-assessment, just as PDCA. People in the school will implement PDCA much broader and in depth inside. TKU World Alumni Federation President Hsiang-shu Duan said, 'It is not easy for the Alma Mater to have won such a special glory. It is really a great achievement to integrate the entrepreneurial spirit into the university management ("Alumini", 2009)

'the most benefit is to take a whole physical examination like our body (02H)'

'we implement PDCA more obviously after winning the award...and team cohesion ...whole process is more definitely...(01C, 03K)'

‘everyone understands the meaning of PDCA and applies PDCA easily...(03K)’

‘now everyone will go back to the PDCA process after the award...(10H)’

‘the process helps me understand PDCA...,add some institutions...we can deal with problems systematically(05H)’

‘applying the award made every unit emphasize identical number...(09H)’

For the outside, because it’s the highest quality in the country, the winner will get much reputation. And the reputation will do a good turn on recruiting students.

‘it will help recruit students...(10H)’

‘after TQM, many units will review their process...many alumni are very proud of their alma mater...(10H)’

### **‘The constructs of the NQA’s to higher educational institutions**

The NQA was set for business originally so the content is different from education. When higher educational institutions want to apply the award, they will find it takes a lot of time to transform the content to educational environment.

‘only a little obvious in performance result, but we also have to try to transform...because they are come from the business...(03K)’

‘it’s very hard in the process of writing the application form...the whole content is different from what we really want to express in education...the criteria is very vague for education...it took us much time and many ideas to write...the biggest obstacle is how to transform the criteria to education’s words ...(01C)’

‘I feel some criteria inappropriate to school... students are not like material which can be control in the factory because students are diversity and can’t be control in one way...’(06H)

Two interviewees whose professional background is human resource management both feel the ‘Human resource’ is hard to applied in higher educational institutions directly

‘Human resource is hard to implement because educational institutions are not for-profit organizations(10H, 07C)’

‘it’s hard to write “knowledge management”, “customer & market”, and process management’...it’s hard to demonstrate performance result...(02H)’

### **‘The important parts in planning on-site visit**

On-site visit is the second part to apply the award. First, you have to prepare data to prove what you mentioned in the reading report. It is a good approach to make PDCA cases following the criteria. Second, all data and power point you present much be consistent with each other. Third, you have to finish your presentation in time.

‘we made 115 PCDA cases by the eight constructs... (02H) ’

‘there’s time limitation for presentation...what you present in the power point must be the same as the reading report...(09H)’

‘I think the key point is the person who presents the power point...(10H)’

### **‘The key reason for winning the NQA**

The critical reason is a powerful leadership and continuous improvement. It not only takes long term effort, but also cost much.

‘...it’s hard to find a university president who leads all members from beginning to end...and check every slide by herself...(09H, 02H)’



‘the president is a leader who makes much of continuous improvement...(10H)’

‘ the leader finds a right team and the team can work with the leader...(03K)’

‘ the president is a key person to success...(05H)’

### **‘The main reason for the past failure to apply the NQA in TKU**

TKU applied the 12<sup>th</sup> TNQA in 2001 and the 18<sup>th</sup> in 2007. Though TKU wasn’t the winner, the leader didn’t give up. The leader tried to find what should be done better. For the first time, TKU couldn’t understand what the TNQA criteria’s meaning and how to use in the higher educational setting. For the second time, TKU didn’t make a good arrangement for the presentation and on-site visit units.

“for the second time, we just let persons write separately but there’s no teamwork...”(01C)

“...for the first time the reviewers said we didn’t have enough PDCA cases...and we couldn’t explain our quality policy clearly...(05H)”

“...we did better and more comprehensive at the third time, in other words, we got the point , sometimes it would not success if you did all thing without embellish...(04G)”

‘...every part sounds good, but they can’t been integrated to a story...’(02H)

### **‘The expectations after winning the NQA for TKU**

Applying the award is a good process of self-assessment and continuous improvement, so TKU have to do something else, like training, implementing the check function of the PDCA.

“ the first is to enhance total involvement from continuous training...,the second is to implement Quality Circle, and encourage across functions’ cooperation..., the third is to strengthen the mechanism for continuous improvement..., especially how to implement check and act..., the fourth is how to check KPIs ...(01C)

“if it’s possible, the training should be reinforced...and we have to consider how to keep and make a breakthrough(10H)”

‘I think the TQM training is not enough in TKU even we won the award...winning the award just give employees an opportunity to understand what TQM is...(06H)

### **‘Suggest other university to apply the NQA**

If you have already implemented TQM, it will give you a good chance to check your school. For private universities, the process will offer a specific goal.

‘...you have the build quality culture first, and the leaders’ common consensus...’(02H)

‘...if you have a chance to show your school, even you are not well-prepared, you will do that...private universities have to develop their own characteristic, if there’s no quality in your school until now, you should do something different to present yourself...because quality management will take you much time and cost much money’...(03K)

We can conclude the important issue in the process of implementing TQM or applying the NQA as: leadership, a long time implementation of TQM, top management commitment, employee involvement, and training.

### **Conclusion**

This paper’s main contribution is the development and implementation of NQA for higher educational institutions. It’s harder than industries to perform result. We conclude many useful issues from the TKU’s experience to other higher educational institutions which want to apply the award.

There’re not so many organizations to be the winner of the NQA like industries. We can find the trend in higher educational institutions that they prove their quality

effort by apply the NQA from 2000 to now. The first NQA winner is Marmara University - Faculty of Engineering (Turkey) which obtained the EQA in 2000. The latest winner is Taipei Medical University (Taiwan) which win the TNQA in 2010.

Evidence from the study indicates that the most benefit to implement TQM or apply the NQA is to integrate inner people and make continuous improvement realistic. It is totally different from the gain in manufacturing industries.

The most valuable issue to apply the NQA is to let the whole school began to 'think quality' and to be proud of what were achieved. Under the era of accountability, higher educational institutions have to face more competitions and offer better education situations. If they would like to adapt the TQM philosophy to achieve their own aims, they have to start as early as possible. The most important is that higher educational institutions must think reflectively how to present the quality both in quantitative and qualitative data, these are at the heart of education.

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