

A Study on the Developing Process and Characteristics of Korean Quality Management System

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Abstract

Because of three reasons: rare natural resources, high dependent ratio and rapid wage increases, Korea must take the non-price competitive strategy. The developing process of quality management system in Korea can be categorized into five stages according to changes in economic policy. In order to develop the Korean quality management system effectively, we should try to connect total quality management with management system and emphasize the training and education.

Key Words: Quality Management System, Strategy

1. WHY QUALITY IS SO IMPORTANT TO KOREA

1.1 Competitive Strategy

According to Michael E. Porter, there are three generic strategies for outperforming other companies in industry.

That is, overall cost leadership strategy, differentiation strategy, and focus strategy.

Sometimes, the firm can successfully pursue more than one approach as its primary goal, but it is rarely possible.

In order to implement any of these generic strategies effectively, total commitment and organizational supporting arrangements should be taken.

In order to simplify our discussion, I would like to exclude the third one, because it is strategy for particular segment only.

The competitive strategy is two fold; One is price competitive and the other is non-price competitive.

Because of three reasons--rare natural resources, high dependent ratio and rapid wage

increases, Korea must take the non-price competitive strategy. This is the reason why quality is so important to Korean industry.

The following three sections outline the reasons why Korea must choose the non-price competitive strategy.

		STRATEGIC ADVANTAGE	
		Uniqueness Perceived by the Customer	Low Cost Position
S T R A T E G I C T A R G E T	Industrywide	DIFFERENTIATION STRATEGY	OVERALL COST LEADERSHIP STRATEGY
	Particular Segment Only	FOCUS STRATEGY	

Figure 1. Three Generic Strategies

	총인구수	취업자수	부양비율
1998	46,286,503	19,938,000	2.322
1999	46,616,677	20,291,000	2.2974
2000	47,008,111	21,156,000	2.2219
2001	47,342,828	21,572,000	2.1946
2002	47,639,618	22,169,000	2.1489
2003	47,676,000	21,802,000	2.187

Figure 2. Dependent Ratio of Korea. (in thousands)

1.2 The Dependent Ratio

The dependent ratio is the number of people each worker must take care. This does not change quickly in short period since the ratio results from the country's traditional customs, norms and family relationships. As you can see in figure 2, the number of dependents per worker in Korea has decreased from the year of IMF shock 1998, but it is higher than the developed countries. Therefore, GNP per capita appears to be low even though labor expenses of corporations are considerably high.

	Total population	Number of Total Worker	Dependent Ratio
Canada	31,082	15,285	2.033
Hungary	10,190	3,802	2.680
Germany	82,399	38,688	2.130
Japan	127,100	63,300	2.008
Korea	47,676	21,082	2.187
U,S,A	286,060	134,241	2.130

Figure 3. Dependent Ratio by Nations in 2003. (In thousands)

1.3 Wage Increase Rate

The increase rate of wage is considerably high in Korea. In the last 3 years, the increase rate of wage in Korea and the U.S.A. are 7% and 2.7% respectively. The foreign exchange rate increases 5% per year, the average domestic manufacturing laborer's wage would be higher than the wage of the U.S.A. worker in ten years.

1.4 Rare natural resource

The natural resource of Korea is so rare that most of important resource must be imported.

Corn of 1.3billion dollar value(93% of total expense)was imported in 2000.

Metallic mineral of 5.1billion dollar value (98% of total expense) was also imported in the same year.

Wheat of 500 million dollar value(99% of total expense) and energy of 25.2 billion dollar value(100% of total expense)were imported in the same year.

Corm	93%	1.3 \$ billion
Metal mineral	98%	5.1 \$ billion
Wheat	99%	0.5 \$ billion
energe petroleum	100% (100%)	25.2 \$ billion

Figure 4. The imported ratio of natural resource in 2000.

2. THE DEVELOPING PROCESS OF QUALITY MANAGEMENT SYSTEM IN KOREA

Quality Management was formally established in Korea when the national standardization project was started. Active support from the government enabled quality management to visibly develop and accordingly, industries became to recognize the necessity of quality management. However, it was not until the late 1970's increasing exports, that manufacturing companies realized the importance of quality management as a competitive factor and put quality management into effect actively.

The developing process of quality management system in Korea can be categorized into five stages according to changes in economic policy.

2.1 The Stag I (1960~1971); Introduction of an Economic Development Plan and Quality Management

Prior to 1960, the economy of Korea was, except for some light industry such as textiles and rubber, weak in capital and facilities. Financing and the level of consumption were very low and management system was largely inefficient. Following from that, from 1962, when the first five-year economic development plan was started, one can say that it was the active policy of the government to become a newly industrialized country.

During that period, the development of industry was lead by the government, and Korea's quality management started unlike other developed countries, from the national standardization policy for stimulating industry.

The standardization of industry was carried out in order to minimize divisive and contradicting issues within production, technology, and distribution. The government tried to establish national standardization system in order to open up industry, solve the imbalance in the supply of raw materials needed for industrialization, protect the consumer, help foster

production, establish an order of distribution, develop the domestic market, increase the amount of exports, and maintain product quality.

2.2 THE Stage II(1972-1981); Establishment of Export Oriented Development Strategy and Quality Management.

The economy of Korea by 1970 started to grow rapidly and transform from primarily agricultural industry to secondary industry based on the establishment of capital resulting from the two cycles of five-year economic development plans in the 1960s. However, until late 1970, industry had been structured toward focusing on heavy chemical and export oriented industry in order to overcome problems stemming from the light industry oriented economic structure and lack of natural resources.

With the growth of an export oriented economy, the effort to drive quality management become vital. As industrialization took place, quality management was transformed from an inspection oriented system to process control system because of growth in consumers' product awareness and in the number of claims for damage of exported goods. From the late 70's, some only, and the long term recession in the world economy. They made quality management part of their own practices and furthermore, new product development part of quality management. Quality management started to be seen as a part of an effort to survive and to be successful.

The national standardization project was also earnestly institutionalized in this period. In 1975, the National Promotion Center for quality management was established as part of the Industrial Advancement Administration, and the Korean Standard Association became the central apparatus for promoting quality management throughout industry.

As you can see in figure5, quality management as it came to be practiced in Korea was one of a Nation Wide Quality Control System(NWQC) which promoted quality through strong government support along with the leadership of the KSA, a non-government organization.

2.3 The stage III(1982-1991); Increasingly Complex Industrial Structure and Stabilized Quality Management.

The economic policy of Korea was changed from a growth oriented to stability oriented one because of uncertainty of economic growth resulting from internal and external vulnerabilities such as: The inequality in distribution of wealth resulting from the government policies focusing solely on the rapid growth of the economy and heavy chemical industries, protective trading policies of developed countries, and intense competition from other developing countries.

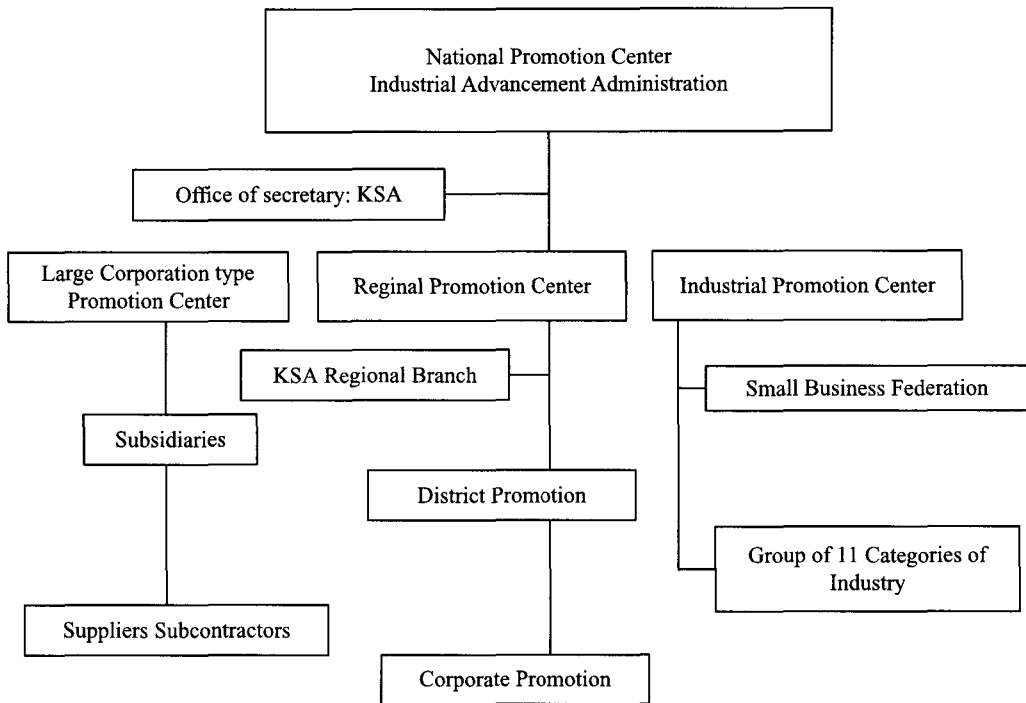


Figure 5. The Nation Wide Q.M. Promotion Organization

Companies also put a lot of energy into increasing efficiency of management in order to establish a high value-added economy by constant development of technology, new export markets, products in which they held a strategic comparative advantage, and by reducing cost by means of quality improvement and increased productivity.

Quality in Korea is not just a simple management technique utilizing applied statistics, but a management policy utilizing aggressive quality control and an integrated management system, for surviving and being successful.

2.4 The Stage IV(1992-2000); Transformation to Total Quality Management System

With the changing business environment, domestic and foreign competition in every aspect, including price, has become very intense among nations and companies as time gas gone by, Problems such as product assurance, trust, and liability have become emphasized. From a strategic perspective, these types of difficulties cannot be expected to be solved without active, voluntary, participation by every employee, including the CEO. In order to cope with

the changing business environment to satisfy the sophisticated tastes of the customer, and regain a competitive edge, Korean companies have had to achieve consumer oriented total quality management in regards to their product, personnel, processes, and resources by moving away from a system which had dealt mainly with controlling and managing workers and the production process.

Therefore, the government and KSA have taken an active role in the pursuit of customer oriented quality management in order to extend quality management which had started in some private companies, throughout Korean industry as a whole.

As you can see in figure6 which illustrates the task of the Nation Wide Quality Management Promotion Organization, the head of the government's Industrial Administration along with the head of the non-government sector's KSA, are both entrusted with being in charge of this organization. The Large Corporation Promotion Center which formerly had 30 groups was expanded to include 34 groups and divided into sub-groups of 100 large parent companies. The Center for the Promotion of Industry which once had 21 groups and then enlarge to 25, now has a total of 56.

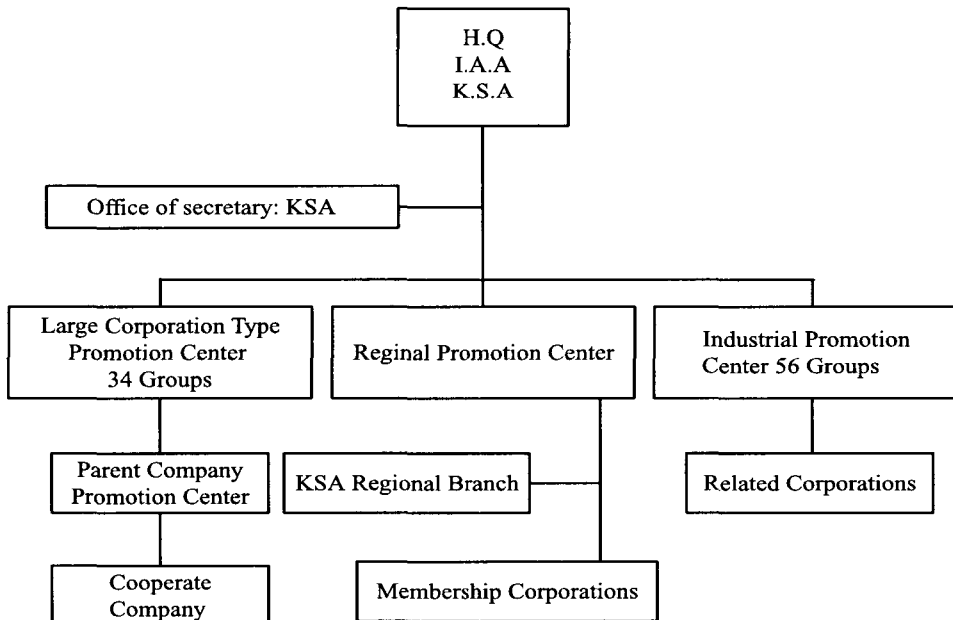


Figure 6. The Nation Wide Q.M. Promotion Organization

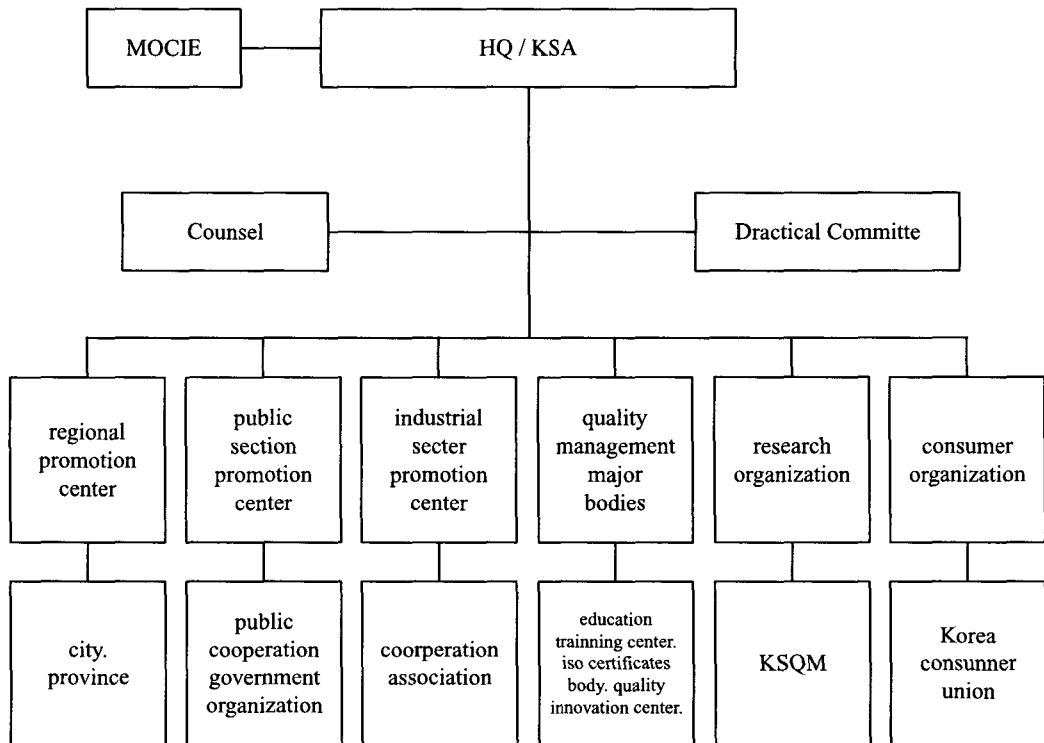


Figure 7. The organization of Quality Management Center.

2.5 The Stage V (2000-Present): Modification Period to Total Quality Management System.

Basic plan for quality management were noticed by mocie (ministing of commerce, industry and energy) in 1998.

Quality management and product safety act were publicized in 2000 and central promotion organization for quality management were established in 2002.

As you can see in figure7, KSA becomes head quarter of quality management promotion and the government have the role of planning the national wide quality management.

The New Quality Forum was founded on January 18, 2001 as a quality-professional, non-governmental, non-profit organization from the voluntary participation of professionals in academia, research and professional institutions, and business world. Its objective is to dedicate itself to enhancing the industrial competitiveness through the introduction of the New Quality culture to continuously create the worlds leading quality and through the research and suggestion of the New Quality model.

New quality culture of the global era that pursues the 10 principles of New Quality in order to leap to the nation of strong quality through continuously creating and developing quality to lead the world market, while actively facing the big changes of the business world.

New Quality is the creative quality, which creates the value and satisfies the customer's needs, through the development of service and a creative and attractive product that the competitor cannot make.

New Quality is the competitive quality, which consists of quality, cost, speed, value, difference and so on.

New Quality is the management quality, which includes process, systems, and the company culture to achieve the creative quality and the competitive quality.

3. Conclusion of Korean Quality Management System.

The characteristics of quality management in Korea can be seen as the following:

First, since Korea companies have been compelled to pursue a program of quality management, either voluntarily or involuntarily, Korean companies do have an awareness of quality management.

Secondly, the methodology used to pursue total quality management is centered on statistics and hasn't yet become connected with management theory.

Third, most of companies are trying to adopt a systematic approach to quality management.

Fourth, although it is very limited, education and training are being emphasized.

Fifth, in a majority of companies, quality management teams are organized and operated, and meetings of the team leaders are held officially and unofficially, so communication within the company is becoming increasingly important.

sixth, inner-company standardization is being widely applied and is becoming a fixture of most companies.

In order to develop the Korean quality management system effectively, we should try to connect total quality management with management system and emphasize the training and education.

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Note

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