**Analysis of Total Quality Management Practices, Competitiveness and Their Relationship to the Task Environment**

1Faihan Mosaad Alotaibi, 2Rushami Zien Yusoff and 3Rabiul Islam

1School of Business Management (SBM), College of Business, University Utara University Malaysia, 06010 UUM, Kedah, Malaysia.
2School of Business Management (SBM), College of Business, University Utara Malaysia, 06010 UUM, Kedah, Malaysia.
3School of Economics, Finance and Banking, College of Business, University Utara Malaysia, 06010 UUM, Kedah, Malaysia.

**Abstract:** The purpose of this paper is to relate the total quality management practices, competitiveness and their relationship to the task environment. Data for this study were obtained from existing literatures on total quality management and competitiveness as well. The methodology heavily relied on existing previous literatures on the subject being dealt with. The findings of the study revealed that leaders do have a critical role to play in the total quality management success as they are responsible for defining targets, investing in people, creating a learning context, and developing cooperative relationship with customers; practices that are related to the achievement of continuous improvement and in turn, continuous improvement affects quality outcomes.

**Key words:** Total Quality management practices, Competitiveness, Relationship, Environment.

**INTRODUCTION**

1.1 Total Quality Management Practices:

Total Quality Management is considered as a philosophy that is basically about continuous organizational success through the employment of customer satisfaction, and by basing it on the contribution of all the employees constantly working to enhance processes, services and products (Al-Asiri, 2004). In other words, it is an all-encompassing effort expended to bring about customer satisfaction through continuous improvement (Torbica, 1997). In addition, its definition has also been provided as satisfying or exceeding the satisfaction of the business stakeholders’ needs and expectations (Steele, 1993). TQM’s definition covers the entire critical success factors including aspects of leadership elements, hard elements and soft elements.

Other researchers provided that TQM is ‘an approach to improving the competitiveness, effectiveness and flexibility of a whole organization’ requiring all aspects of planning, organizing and understanding every single activity (O’Neill & Sohal, 1999). Still other researchers consider it as a process of constant improvement (Gonsalves, 2002) in the quality aspect of the entire processes, people, products and services within an organization and its core goal is to improve the value for the customers through continuous improvement of organizational processes and systems (Hill, 2008). Total quality is the unyielding and continually improving effort by everyone in an organization to understand, meet, and exceed the expectations of customers.

The American Society for Quality provided quality’s definition as ‘how good the product or the service satisfies the customer specifications, either stated or implied (James, 2008). It is notable that this definition of quality is similar to the one stated in the MBNQA criteria. From the definition, it is clear that quality should be characterized as the element that meets or exceeds customer needs and wants and the features comprising quality include performance, features, durability, aesthetics and service quality (Lian, 2001). Therefore, TQM is a management philosophy stating that every employee within the organization must work in enhancing the processes for the purpose of meeting or exceeding customer expectations. According to Motwani (2001), the emphasis stated in MBNQA is inclined to the achievement of customer satisfaction by continuous quality improvement, as opposed to the provision of a holistic kind of quality improvement.

Of the most notable study carried out regarding quality is Garvin’s identification of the five approaches to defining it (Lian, 2001; Torbica, 1997). These five approaches are transcendent approach; an approach where quality is considered to be similar with innate excellence, the product-based approach where quality is considered to be a characteristic of the product, the user-based approach; where the user is left to decide on the quality, the manufacturing-based approach where quality is viewed from the viewpoint of engineering, and finally the value-based approach where the product or service conforms to certain specifications. Manufactured products have features like performance, durability, reliability, aesthetics and perceived quality for quality measurement while services have timeliness, courtesy, accuracy, convenience and responsiveness. Owing to the
lack of consensus regarding the definition of quality management, MBNQA has developed certain specifications and procedures for quality (Hill, 2008). Nevertheless, it is up to the firms to find their own ways of process improvement.

1.2 Role of Total Quality Management in Contractors Firms:

Currently, TQM has been increasingly taken up by construction companies as a solution to their quality problems and to satisfy customer needs and demands (Mahmood et al., 2006). This is not surprising as quality management has been previously adopted by various kinds of industries and hence, it comes to reason that it might have significance in the construction industry too. Generally, quality management provides the firm with two competitive factors: product quality and customer services (Gonsalves, 2002). Internationally renowned manufacturers have been known to compete in an effective way due to the high level of process improvement in the quality as well as customer-service facets of the firm. Similarly, quality management provides a competitiveness factor in the manufacturing as well as service areas.

Nevertheless, the construction industry is still hesitant in adopting TQM practices as their short term advantages are few and far between and the construction industries expect instantaneous results. The complexity of TQM adoption has also been evidenced by Motwani (2001), who stated that TQM implementation is characterized as a monumental organizational change that calls for the overall modification of the culture, process, strategic priorities, and beliefs in the organization.

The current alternative to change in the construction industry is re-engineering which has been found to be effective as the margin of improvement from business process re-engineering (BPR) is much higher as compared to enhancements resulting from TQM implementation (Abdul-Hadi et al. 2005). When performance began decreasing and various challenges cropped up, some firms turned to TQM. Nevertheless, dependence on such continuous improvement tools was found insufficient (Abdul-Hadi et al., 2005). This led some authors to recommend TQM to be coupled with BPR for the purpose of better outcome. An instance of a not so successful TQM implementation is the South African high tech industry whose TQM adoption proved to be isolated and fragmented. Therefore, it can be said that for the purpose of competing successfully in the international markets, quality on its own is insufficient and a quality approach of a holistic nature comprising of a wide spectrum of company and characteristics is imperative.

In Australian construction industry, with the industry’s management facing challenges stemming from its highly fragmented and loosely supply chains, TQM implementation was not initiated until the government introduced a QA mandate for the purpose of procuring projects. Based on Zairi and Youssef (1995) the applicability of 22 critical factors based on the MBNQA criteria along with the suggestions from three TQM gurus involving the operating on a global basis has been verified and figure 1 indicating 22 factors in order of priority:

Nevertheless, the authors are of the opinion that not the entire factors play a crucial role in all organizations. What is imperative is the top management’s cooperation and facilitation through active involvement, setting clear goals, having clear vision, and integrating TQM into the strategic quality planning process. Additionally, culture change is also significant in the achievement of TQM implementation and it is not sufficient just to utilize simple tools and techniques without constant improvement through constant learning and development.

The implementation of TQM needs the commitment of top management in addition to its organizational systems analysis, education and training on problem solving and quality improvement process and on group dynamics (Naguib, 1993). Prior to the TQM implementation, employee involvement has to plan if the top management decides to garner employee suggestions on the matter as this could guarantee the satisfaction of the company’s entire needs. Efforts of intensive caliber are called for, for the effective TQM implementation as evidenced by Naguib through his study involving a five year experience in the implementation of TQM. Naguib’s (1993) study revolved around the silicon wafer fabrication (FAB) facility in Xerox Microelectronics Center (MEC) and the results presented TQM importance in the achievement of significant enhancement in elements of the organizations: customer satisfaction, employee satisfaction, productivity, profitability, product quality, manufacturing costs, and on-time delivery. In sum, the TQM’s basic concepts can be summarized to: customer satisfaction, continuous improvement, total quality control, continuous education and training, and total employee involvement.
Fig. 1: Factors Indicating.

1.3 Total Quality Management Practices and Competitiveness:

Price, quality, flexibility and delivery dependability are the four main dimensions which forms the competitive elements of a firm. The authors mainly concentrated on quality as a competitiveness' dimension and they created an index called the quality competitiveness index (QCI) that determines the measurement of the level of competitiveness of the a company and how it contributes to quality. In order to achieve competitive advantage through quality management, a number of broad frameworks have been developed such as: Crosby’s “14 steps”, Deming’s “14 Prescriptive Points”, and Juran’s Trilogy. The authors failed to determine whether these frameworks offer significant specificity for corporate initiation of quality. Nevertheless, the different quality frameworks include customer focus, continuous improvement and teamwork. The authors developed a framework that includes quality in mission, strategy, policies and infrastructure; a framework that can be used effectively for benchmarking in competing firms. The determination of the QCI itself presented the strengths and weaknesses of the company based on its quality practices and policies. The information contributed to the improvement of competitiveness for quality.

2. Total Quality Management Practices Factors:

2.1 Top Management:

Management leadership and commitment is required for TQM implementation. Good and effective leadership generally denotes keeping a close involvement in the implementation activities for the purpose of maintaining the momentum of the employees towards customer satisfaction (Negri, 2003). TQM is in need of maximum efforts from each and every employee in the company in order to maintain customer satisfaction (McAdam et al., 2002). The lack of clear and consistent quality leadership leads to quality failure. In other words, the leader should facilitate the suitable environment for the group for the purpose of improving performance and productivity (Leiter & Maslach, 2002). Juran (1974) is of the opinion that most of the issues related to quality are linked to management indicating that successful quality management depends on the extent of management commitment. Similarly, Deming (1986) considered quality responsibility attributable to top management while Atkinson (1990) reveals that 80 percent of TQM failures are generally linked to lack of commitment from top management.
Along a similar line of study, Tari, et al., (2007) carried out an identification of the relationship between quality management practices, and the direct and indirect effects of these practices on quality outcomes in Spain. The study revealed that leaders do have a critical role to play in the TQM success as they are responsible for defining targets, investing in people, creating a learning context, and developing cooperative relationship with customers; practices that are related to the achievement of continuous improvement and in turn, continuous improvement affects quality outcomes.

2.2 Human Resource Management:
Employee involvement is important due to the fact that lack of it has been found to be a barrier to the successful implementation. In other words, human resource has a crucial role in the implementation process as the middle managers and the employees need to be motivated, trained and involved in an in-depth manner. With the help of quality awareness, the employees’ attitude as well as their mindset has to be modified for positive outcome. Nevertheless, TQM cannot be forced upon employees and management alike as its voluntary acceptance must be throughout the organization. Also, TQM is all about continuous improvement of processes which translates to continuous change. Hence, in cases where employees are stubborn to change their ways, then there is a moot chance of a successful TQM implementation (Kanji and Wallace, 2000).

2.3 Education and Training:
Ahire et al. (1996) stipulated the importance of training and development by stating that employee empowerment and involvement framework will not be effective until and unless employees become recipients of formal, systematic training in quality management. This was further evidenced by Ishikawa (1985) who stated that quality begins and ends with training and in addition, McAdam et al., (2002) stated that training and development are critical elements of all TQM initiatives.

Firms that facilitate workplace education programs displayed notable improvements in their workers’ skill and the quality of their products (Cebeci and Beskese, 2002). According to Feigenbaum (1961), the purpose of training is to enhance the skills of the employees so they do not become obsolete in an ever changing environment and to maintain their perception and attitude for quality.

Similarly, Rao et al., (1996) stated that TQM training programs should be established in all levels of the organization since senior managers who are the leaders of TQM process would be able to break down the barriers in the organization and act as role models who are first hesitant to follow the changes. Also, in his effort to develop a TQM instrument, Zhang et al., (2000) revealed that organizations are convinced that education and training are crucial parts of the TQM initiative. Current empirical studies also revealed that training and organization are important for the successful implementation of TQM (Rao et al., 1999; Zhang et al., 2000; Ahire et al., 1996).

2.4 Customer Focus:
Generally speaking, customers are often considered as an asset of the economy. Although they are not listed on the balance sheet, several studies suggest that they should be (Kanji and Wallace, 2000). Deming suggests a complete overhaul of the current management methods in achieving a culture characterized by constant improvement for the purpose of sustainable customer satisfaction. TQM calls for all organizational efforts on focusing on customer satisfaction in a right-first-time and every time approach.

The stress on customer satisfaction is looked upon by several gurus and writers as one that leads to a successful quality management effort. In other words, a strategic concept of customer satisfaction is specifically concerned with successful goals pertaining to customer retention and market penetration (Rao et al., 1996).

In a similar study, Bagchi, (1997) asserts that TQM makes monumental changes in an organization and that customer satisfaction - its core element, (internal and external), provides competitive advantage. The author further determined four important TQM characteristics which are: top management’s direct involvement, customer-orientation leading to customer satisfaction, company-wide participation in customer satisfaction, and use of systematic methods in resolving quality problems. In other words, all business objectives have customer satisfaction as their core. Furthermore, the author proceeded by emphasizing the TQM objective which is nothing less than customer satisfaction and TQM needs the eradication of all other activities that does not contribute to customer value.

2.5 Information and Analysis:
Information and analysis is concerned with the evaluation of different policies and strategies, quality audit, quality costs, evaluation of department/function performance, and evaluation of employee-supplier performance. If the dissemination of the produced information is inferior, quality techniques such as benchmarking and statistical process control (SPC) tools will not work. In order to sustain a customer focus, the organization should guarantee timely feedback of customer survey outcome to distribute functions to functional areas (Metri, 2005).
Quality information and performance measurement issues were also examined by many studies. The Malcolm Baldrige National Quality Award (MBNQA) structure also advocates that quality information is the core of a TQM system. It considers information and analysis to be critical to the effective management of the organization and to a fact-based system to enhance performance competitiveness (NIST, 2001).

Sila and Ebrahimpour’s (2005) study examined the relations among TQM factors including leadership, strategic planning, customer focus, information and analysis, human resource management, process management, supplier management and the outcome of the practices in the form of human resource results, customer results, organizational effectiveness, and financial and market results. On the other hand, Prajogo and Sohal’s (2003) studed comprise of TQM model factors including leadership, strategic quality planning, customer focus, information and analysis, process and human resource management. Other studies included information and analysis (Anderson, & Sohal, 1999), information (Sun, 2001), information flow (Kannan et al., 1999), quality information system (Najmi, & Kehoe, 2000), process measurement, internal information use on quality, quality data, quality measurement and benchmarking (Ahire et al., 1996).

2.6 Continuous Improvement:

Continuous improvement implementation in the management of everyday activities is imperative to the employees working towards the success of the organization. According to Anderson et al. (1994), continuous improvement has its basis on the practices of process management that produces incremental improvement and innovation of products, services and processes. Continuous improvement involves the systematic measurement and focus on product/service, excellence teams, cross-functional process management, and the attainment, maintenance and improvement of standards.

Owing to the global competition based on customer demand, modification of acceptable standards took place. What seem to be the popular best products/services currently may become obsolete tomorrow. This is due to the increase in customer expectations that stem from the changes in the global environment. As a result of these changes, organizations are benchmarking the processes from one another to delve into and discover the secrets behind their successes. Based on Quirke (1995), the main challenge lies in the acquisition of customers, retention and building relationships with them as well as discovering ways of being more valuable to them before their rival does. For an organization to achieve such a fete, the need for continuous improvement of the products, services, processes and people should be realized. Continuous improvement is considered as the constant refinement and improvement of products, services and organizational systems to yield improved value to customers (Stahl, 1995).

2.7 Process Management:

Organizational activities can be termed as processes and hence, if the goal of TQM initiative is the achievement of overall quality performance, then process management becomes a crucial requirement. Process management is considered as the concern of conformance quality. One important element of process management is to guarantee that process capability is able to achieve the production requirements (Zhang et al., 2000).

Along similar lines, Oakland (1993) claims that process management is the way to convince employees that they are responsible for their tasks in relation to customer satisfaction. Motwani (2001) stated that process management stresses the value adding to a process, increasing the productivity of each employee and improving the quality of the firm organization.

2.8 Supplier Managements:

Another important element of TQM is supplier quality management as the materials and the purchased parts are sometimes the root of quality problems (Zhang et al., 2000). In other words, poor quality of supplier products generally leads to extra costs for the purchases. This explains why a major portion of quality problems can be rooted in the supplier. For the purpose of attaining success on both sides and business development, a solid relationship should be developed. According to Flood (1993), companies are compulsorily required to treat their supplier akin to how they treat their long-term business partners.

Several researchers contend that companies should create supply chain partnerships for the purpose of motivating suppliers to offer materials required for meeting customer expectations (Clifton, 2001). According to Kanji and Wong (1998), they stated that the creation and enhancement of the customer-supplier partnership is a major quality practice; a statement also evidenced by Wong and Fung (1999). Moreover, Zineldin and Fonsson (2000) claimed that the development of supplier partnership and long-term relations with suppliers may maximize the competitiveness of the firm.

Notable quality gurus are of the belief that supplier should be considered as a crucial part in the business operations of the organization (Crosby, 1989). In addition, according to Crosby (1989) one of the most essential elements of quality improvement process is the link between supplier and buyer. Organizations all around the
world are utilizing teams for quality improvement of their products and services while recognizing the fact that suppliers play a critical role in this teamwork (Wong, 2000).

3.1 Instruments Measurement for Total Quality Management Practices:

Literature contains key factors for TQM implementation and these factors have generally been provided by quality genius, formal evaluation models (European Quality Award, Malcolm Baldrige National Quality Award, Deming Award) and measurement studies (Flynn et al., 1994). The following table (Table 1), presents quality management practices on the basis of studies concentrating on the quality measurement instruments.

<table>
<thead>
<tr>
<th>Study</th>
<th>Quality Management Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saraph et al. (1989)</td>
<td>Role of divisional top management and quality policy; role of the quality department; training; product/service design; supplier quality management; process management; quality data and reporting; employee relationships.</td>
</tr>
<tr>
<td>Flynn et al. (1994)</td>
<td>Top management support (quality leadership; quality improvement rewards); quality information (process control, feedback); process management (cleanliness and organization); product design (new product quality, inter-functional design process); workforce management (selection for teamwork potential, teamwork); supplier involvement (supplier relationship); customer involvement (customer interaction)</td>
</tr>
<tr>
<td>Black and Porter (1995, 1996)</td>
<td>Corporate quality culture; strategic quality management; quality improvement measurement system; people and customer management; operational quality planning; external interface management; supplier partnerships; teamwork structures; customer satisfaction orientation; communication of improvement information</td>
</tr>
<tr>
<td>Ahire et al. (1996)</td>
<td>Top management commitment; customer focus; supplier quality management; design quality management; benchmarking; statistical process control usage; internal quality information usage; employee empowerment; employee involvement; employee training; product quality; supplier performance</td>
</tr>
<tr>
<td>Grandzol and Gershon (1998)</td>
<td>Leadership; continuous improvement; employee fulfillment; learning; process management; internal/external cooperation; customer focus</td>
</tr>
<tr>
<td>Quazi and Padhiyo (1998)</td>
<td>Leadership; information and analysis; strategic planning; human resource utilization; management of process quality; quality results; customer satisfaction</td>
</tr>
<tr>
<td>Rao et al. (1999)</td>
<td>Top management support; strategic quality planning; quality information availability; quality information usage; employee training; employee involvement; product/process design; supplier quality; customer orientation; quality citizenship; benchmarking</td>
</tr>
<tr>
<td>Conca et al. (2004)</td>
<td>Leadership; quality planning; employee management; supplier management; customer focus; process management; continuous improvement; learning</td>
</tr>
</tbody>
</table>


3.2 Competitiveness:

The competitiveness concept has been defined in multitude of ways; in the individual firms context, industries context and nations context. Porter (1990) stated that “national prosperity is created and not inherited. It does not grow out of a nation’s natural endowments, its labour pool, its interest rates, or its currency’s value, as classical economics insists. A nation’s competitiveness depends on the capacity of its industry to innovate and upgrade.” Competitiveness at the firm level can be described as the firm’s ability to thrive in a competitive environment with its rivals. Companies from all over the world gain competitive edge over their rivals withstanding the pressure and challenge. The existence of strong local rivals, aggressive local suppliers and demanding customers perpetuate the competitiveness of companies meeting them with the help of innovation.

Another definition provided for competitiveness is that it is the ability of a firm to produce, distribute and service goods in the international arena as compared to other countries (Jiatao, & Yongqing, 2008). It describes the firm’s competitive advantage as compared to other competitors in the market and it stems from different business processes like production, R&D, financing, and marketing. Currently, production of high-quality goods is not the core issue. What has been reported to be lacking based on the researchers’ opinions is the delivery part of the product or the service to the target market in order to meet customer satisfaction. Accordingly, Kotler also contends that a firm should be comparatively effective with its competitors in the creation, delivery and communication of customer value to the target market.

Competitiveness is a concept that is widely used by economists and business management researchers specifically in the way of national competitiveness. Both the World Economic Forum (WEF) and the International Institute of Management Development (IMD) publish competitiveness reports annually in order to carry out a measurement of the nations various competitiveness.

Competitive advantage is defined as the company’s ability to produce products providing higher value compared to their rival products. This results in higher sales and maximized profits. Due to the recent phenomenon of globalization, the way firms manufacture and deliver goods and services have been significantly modified. Based on the quality of goods normally depends on what the customers think of it and therefore customers are the sole factor that leads to competition among organizations. There exist structural modifications in the distribution of production and while the developed economies experience a decrease in the traditional industries, the emerging economies experience the opposite. Eventually, the U.S. and foreign companies accepted their need to consider the world as one market place and the U.S. manufacturing sector slowly but

<table>
<thead>
<tr>
<th>Table 1: Quality management practices according to measurement instruments.</th>
<th>Study</th>
<th>Quality Management Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study</td>
<td>Quality Management Measures</td>
<td></td>
</tr>
<tr>
<td>Saraph et al. (1989)</td>
<td>Role of divisional top management and quality policy; role of the quality department; training; product/service design; supplier quality management; process management; quality data and reporting; employee relationships.</td>
<td></td>
</tr>
<tr>
<td>Flynn et al. (1994)</td>
<td>Top management support (quality leadership; quality improvement rewards); quality information (process control, feedback); process management (cleanliness and organization); product design (new product quality, inter-functional design process); workforce management (selection for teamwork potential, teamwork); supplier involvement (supplier relationship); customer involvement (customer interaction)</td>
<td></td>
</tr>
<tr>
<td>Black and Porter (1995, 1996)</td>
<td>Corporate quality culture; strategic quality management; quality improvement measurement system; people and customer management; operational quality planning; external interface management; supplier partnerships; teamwork structures; customer satisfaction orientation; communication of improvement information</td>
<td></td>
</tr>
<tr>
<td>Ahire et al. (1996)</td>
<td>Top management commitment; customer focus; supplier quality management; design quality management; benchmarking; statistical process control usage; internal quality information usage; employee empowerment; employee involvement; employee training; product quality; supplier performance</td>
<td></td>
</tr>
<tr>
<td>Grandzol and Gershon (1998)</td>
<td>Leadership; continuous improvement; employee fulfillment; learning; process management; internal/external cooperation; customer focus</td>
<td></td>
</tr>
<tr>
<td>Quazi and Padhiyo (1998)</td>
<td>Leadership; information and analysis; strategic planning; human resource utilization; management of process quality; quality results; customer satisfaction</td>
<td></td>
</tr>
<tr>
<td>Rao et al. (1999)</td>
<td>Top management support; strategic quality planning; quality information availability; quality information usage; employee training; employee involvement; product/process design; supplier quality; customer orientation; quality citizenship; benchmarking</td>
<td></td>
</tr>
<tr>
<td>Conca et al. (2004)</td>
<td>Leadership; quality planning; employee management; supplier management; customer focus; process management; continuous improvement; learning</td>
<td></td>
</tr>
</tbody>
</table>
Contractor competitiveness has been widely studied in literature. Prior traditional contractor competitiveness studies stress on tender price and relatively ignored the evaluation of contractor’s performance attributes (Kumaraswamy and Walker, 1999). According to researchers (Drew et al., 2001), the most popular mechanism to award contracts to contractors is still price competitiveness. However, it has been acknowledged that a service of high quality cannot be achieved if the lowest tender is accepted which resulted in the need to shift from ‘lowest price wins’ to ‘multi-criteria selection’ in the process of selection. Similarly, Hatush and Skitmore (1997) state that contractor competence should be evaluated based on a variety of factors like financial soundness, technical ability, management capability, reputation and safety performance.

In a related research, Lam et al. (2000) made use of an artificial neural network as a tool to support decision making for pre-chosen contractors by examining the multiple variables of contractor competitiveness. In another study, Wong et al. (2000) examined the UK practice and revealed that ‘lowest price’ is not necessarily a part of the client’s selection criterion and proposed that cost should be made as one of the criterion along with evaluation of the ability of the contractor to fulfill the project’s goals. The above studies have proposed many criteria to be used in awarding construction contracts by the assessment of the contractor competitiveness. Nevertheless, they have failed to introduce tools to help contractors develop competitive strategies while performance attributes are utilized in the selection procedures.

On the other hand, Shen et al. (1999) developed an invaluable bid model to help contractors determine a more superior bidding strategy while considering both tender price and construction time. This developed model has its basis on the rationale that generally call for bids along with tender price and contract time. It was developed through the application of the ISO-line and regression analysis methods. However, the model fails to consider other performance attributes like quality performance, environmental performance and safety standards.

3.3 Role of Competitiveness in the Construction Firms:

Competitiveness is considered as the ability of a business organization to survive in a competitive marketplace through the offering of products and services that attract and satisfy customers’ needs. Competitiveness of enterprises is their ability of creative development in the market environment in comparison to other enterprises (Shi-rong & Guang-kun, 2008). According to the authors, there lie differences between competitiveness of enterprises and competitiveness of construction projects as even the competitiveness initially lies on the projects. For the evaluation of competitiveness of construction projects, Shi-Rong and Guang-kun (2008) delved into the concept of competition. In construction projects, owners and contractors often see each other as opponents resulting in negative competition, so therefore, a balance between the parties is called for, for the purpose of smooth progress. The study stressed on competitiveness and collaboration existing between entities of various construction projects.

Based on Chen and Miller (1994)’s contention, the rivalry between projects is the core of any business strategy and this contention remains the same in construction industries. Competition happens in the form of price cuts, advertising wars and new products and service introductions. As for Porter, he opined that rivalry normally happens when competitors perceive the pressure or notice the opportunity to improve position (Chen & Miller, 1994). In several industries, competitive activities normally lead to rivals’ retaliation: an element that has been considered to have a negative association with performance. Therefore, situations leading to retaliation have to be avoided. Moves and countermoves from different firms of the same sector may be even worse. The authors recommend that a subtle attack should be employed so as not to result in counter attacks. The preference of a subtle attack over a brutal one has been taken from the expectancy-valence model of motivation. It states that a subtle attack reduces the motivation to respond and retaliation is considered as a function of the subtlety of an attack. Low visibility, substantial response difficulty and minimal centrality would each by themselves, be enough to prevent retaliation.

4. Task Environment: Relationship with Various Parties:

Contractors companies have complex relations with various parties such as clients, government departments, professional consultants, creditors, sub-contractors and suppliers. Their relationship with these parties can be summed up as: clients offer them contracts, the government departments in state regulations, professional consultants work for the clients, creditors support them financially, and sub-contractors help them in accomplishing the project, and finally, suppliers provide them with the materials and equipment required. It is
important that contractors develop and maintain good relations with all parties in order to gain opportunities and contracts and enhance efficient contracting projects.

4.1 Relationship with Clients:

One of the most important parties in the construction industry is the clients; either public or private. Contractors usually develop relations with clients through satisfying their demands for the facility constructed. In case of problems, contractors make use of contract documents although there are certain limitations to this as it does not cover the whole risks of the project particularly large projects contracted for long duration. In addition, contract documents are not able to resolve problems concerning bad faith because resolution procedures bring inconvenience and costs (Dimaggio and Louch, 1998). This forces clients to be more vigilant in contractor selection and various tools are used to avoid risks such as claims and disputes. Moreover, clients gather information regarding contractors from previous clients, designers, sub-contractors, sureties and their vigilance to regulations. Hence, it can be stated that developing and maintaining relations with various parties would allow contractors to carry out their work efficiently and provide them with more opportunity to more future contracts.

In the Kingdom, owing to the public clients high quality requirements, strict selection techniques for public works are employed. Contractors can develop their relation with public clients by becoming members of the list for contractors of public works; contractors providing clients with the quality service they require. On the other hand, large construction firms generally develop their relations with clients through various contacts, production of high quality products and services and creating a corporate brand. For instance, a major contractor in Saudi Arabia cultivated good reputation through its provision of high quality products and services which led to its good relations with clients, specifically with public ones whose expectations of quality standard are high (Al-Kharashi, & Skitmore, 2009).

4.2 Relationship with Government Departments:

Contractors have to develop their relations with government departments as the latter are the ones to enact regulations pertaining to construction and they represent the major clients in the industry. In the context of Saudi Arabia, the main method to cultivate relations with governmental departments is to be included in the list set up by these departments.

These departments select the suitable contractors for the public works to set up regulations in various public sectors. In addition, with good relations to these departments, contractors can be privy to future policies and their probability of competing for the public works will remain high. Added to being in the list, the contractors should perform quality public works, and contribute to the government department. A good relation with the relevant government departments would earn the contractor a competitive edge in the competition (Assaf, and Mohammed, 1996).

4.3 Relationship with Professional Consultants:

The contractors’ relation with the professional consultants can either be direct or indirect. Professional consultants such as architects, engineers, and surveyors generally act as the client’s agent whereby they assist the client in solving technical or managerial issues in the construction project. In practice, the relationship is an extension of the client-contractor relations. In some cases, professional consultants provide services to contractors which more often than not, result in direct relations. No matter what kind of relation exists between the two, it is evident that a good relation can impact the project’s result. Therefore, open communication and effective cooperation between the two parties will facilitate the consultant’s conceptual ideas’ transformation into reality. Maintaining good relation with professional consultants will be to the contractor’s advantage more specifically when bidding for more projects. It is also imperative for contractors to deliver efficient projects to gain more contracts through recommendation from the consultants (Al-Kharashi, & Skitmore, 2009).

4.4 Relationship with Creditors:

It is imperative for contractors to maintain good relations with creditors to obtain financing as capital is essential for all types of projects such as private public partnership. Additionally, contractors scramble for ways to obtain financial support while competing with rivals in the industry. Similarly, the government’s financial support plays a crucial role in developing an effective domestic industry and enhancing contractor’s competitive edge. For instance, in Japan, the government provides subsidized finance for contractors during competition (Raftery et al., 1998). The Japanese contractors reciprocate by financing host countries to obtain major market share in Asia (Reina and Tulacz, 1996). The example implies the critical element of financial support in the construction firm’s growth.

An ideal way to support the financial capability is to earn money through the stock market. Nevertheless, in the Kingdom, the number of public-listed companies is still small. Chiang et al. (2001) states that finance is a main barrier to entry as it is mostly challenging for domestic contractors to collect enough money to enhance
and develop their technology. The few contractors who are publicly listed in the stock market have higher costs of finance compared to property developers. As a result, local property development companies have turned to collecting financial support from foreign capital markets through convertible bonds although this technique is still new. In Saudi Arabia, the banks provide various types of financial services for contractors and other clients. This however, does not imply that financial support is easy to get as contractors have to first prove to the banks that they have stable profits and are able to repay. The trust between the two entities is developed through long term cooperation. With good relations with creditors, contractors are able to obtain sufficient financial support to carry out their competitive strategies and eventually maintain their competitive edge.

4.5 Relationship with Sub-contractors:

As mentioned earlier, owing to the volatility of the construction market, it is almost impossible for large constructors to maintain resources such as labour, equipment, etc. Therefore, contractors opt for delegating the burden to sub-contractors. It is important that the contractors’ relation with the sub-contractors be viewed in three facets: asset specificity, uncertainty and frequency of exchange relationships. These relationships require high human asset specificity and considerable uncertainty (Jones et al., 1997).

A good relation between the two entities can benefit them both; sub-contractors will have many opportunities to obtain additional work while contractors will be able to subcontract projects through competitive prices. In majority of cases, inexperienced sub-contractors ask for higher prices from contractors compared to experience ones (Shash, 1998). Moreover, a strong relationship with the sub-contractors will enhance the coordination and communication between the two and both can deliver high quality projects resulting in competitive advantages.

In Saudi Arabia, sub-contractors can be categorized into labour-only sub-contractors and fee sub-contractors. The former only provides labour services in exchange for a sum of money while the main contractor is responsible for material and resources supply. The latter provides all the necessary resources in exchange for a sum of money through tender or negotiation. A major portion of the construction work is primarily carried out by the sub-contractors and hence, it is imperative that the contractor maintain good relation with them as this will lead to their strong competitiveness (Al-Hammad, 1993).

4.6 Relationship with Suppliers:

Materials for construction are crucial for any construction project and contractors usually procure these materials from suppliers which eventually results in an exchange relationship. At the onset of this exchange, the contractors are uncertain of the suppliers’ performance in light of product and service quality. This relationship eventually impacts the contractor’s performance; for instance, when a supplier fails to satisfy the contractor’s requirements, this may lead to problems in set time, cost, and quality objectives. As such, various methods have been recommended to deal with the uncertainties and coordination issues. According to Stukhart (1995), majority of the contractors mainly keep their suppliers that supply their main materials. Frequent meetings are held with them for procurement process enhancement. Consequently, this high cooperation between the two will enable both parties to coordinate and develop trust and ways of communication. More importantly, this type of learning will lead to the contractor’s enhanced procurement of materials.

Through the reliable and predictable procurement process, contractors may minimize transaction cost. In other words, a good relationship with suppliers’ results in extended credit terms, reduction of excess demand of working capital, minimal amount of inventory and reduction of construction cost (Akintoye, 1995). Contractors are benefited greatly from their harmonious relationship with suppliers.

In Saudi Arabia, the construction industry mainly depends upon materials imported from abroad and because Saudi Arabia practices free port with a few restrictions, there are many sources and qualities of materials with suppliers hailing from different countries. Material selection depends upon the logistical problems and suppliers from Asia are the best options. However, for specialist suppliers, the scenario is more complex and selecting the right one is crucial. In sum, maintaining long-term relation with main suppliers may lead to the enhancement of construction work and competitiveness of the construction firm.

5. Conclusions:

In the construction sector, quality management guarantees home-buyer satisfaction; an element that is most critical in the business. However, instantaneous results should not be expected as the manifestation of improvement varies from nation to nation and from region to region. Therefore, there should be an allowance of a five year period for benefits to manifest. The difference owes itself to the differences in culture, in the external business environment and the governmental support. As for the barriers to development in the sector, it is largely attributed to lack of quality and corruption. Hence, quality management is called for at all levels of organization like design, procurement and construction. Through the adoption of a result-based approach, the construction companies can anticipate tangible benefits.
Based on the study by Bagchi (1997), and Torbica (1997), TQM basically leads to competitive advantage through customer satisfaction in the condition that it is utilized with an appropriate strategy (Bagchi, 1997; Torbica, 1997). This is evident in Deming’s philosophy of customer-centric approach which advocates the possibility of coming up with an alternative material and the impossibility of finding another customer. TQM makes it possible and easier to obtain a competitive position owing to its value and unique element and it facilitates the development of the organization’s global vision. It has been revealed to generally lead to competitive advantage through the utilization of varying strategies and elements including core values – style, integrity, care and innovation. It has also been reported to link to marketing function of competitiveness (Hoang, 2009). It is noted that a constantly changing culture adapting to TQM should be adopted to gain benefits provided by TQM. Moreover, several authors have stated that top management commitment is crucial for TQM implementation and adoption of a research-based method instead of an activity-based method.

REFERENCES


