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Determining Of Critical Success Factors for TQM Execution in Ship Building Industry of Bangladesh

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ABSTRACT

Now a day, improving quality has turn into a company-wide endeavour as the escalating globalization of trade & commerce underscore the inevitability of incessant enhancement. Total quality management (TQM), is one of the favored technique to conquer this stratum. TQM plays a vital role in improving productivity as well other developments in the arena of ship building industry. This paper aims to determine critical success factors (CSF) for TQM implementation in ship building industry in perspective of Bangladesh. Ship building Industry is an important economic and industrial sector in Bangladesh. Bangladesh is a maritime nation with 9,000 sq km of territorial waters, 720 km long coastline. It has 700 rivers that come down from the surrounding countries and which provide 24000 km long inland waterways. It's a growing industry in Bangladesh with great potentials. Shipbuilding has become a major promising industry in recent years when the locally made ships began to be exported. In this article, three types of research methodologies (face to face semi structured interviews, questionnaires and observation) are followed to investigate critical success factor for TQM implementation in ship building industries in Bangladesh, with a view to stimulating the performance and find out the main barriers to implement TQM successfully in this field.

Keywords: Total Quality Management, Critical Success Factors, Bangladesh Ship Building Industry, Benchmark

INTRODUCTION

Total Quality Management is a management approach that originated in the 1950's and in 1970s, competition based on quality has grown in importance and has generated tremendous interest, concern, and enthusiasm & became steadily popular in early 1980's. Total Quality is a description of the culture, attitude and organization of a company that strives to provide customers with products and services that satisfy their needs. The culture requires quality in all aspects of the company's operations, with processes being done right the first time and defects and waste eradicated from operations [1]. Therefore most organization possesses an endeavor to appease their customer demand and expectation.

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This can only be attained through customer focus, incessant improvement and benchmarking. So, TQM is the focus on identifying root causes of quality problems and correcting them at the source, as opposed to inspecting the product after it has been made. Not only does TQM encompass the entire organization, but it stresses that quality is customer driven. TQM attempts to embed quality in every aspect of the organization. It is concerned with technical aspects of quality as well as the involvement of people in quality, such as customers, company employees, and suppliers. [2]

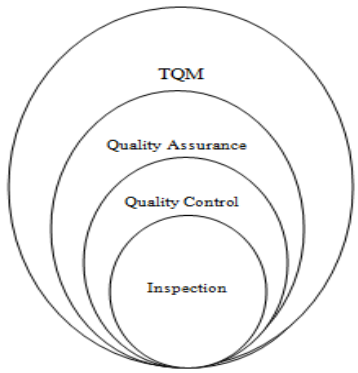

Fig1. Evolution of TQM

Implementing total quality management requires broad and sweeping changes throughout a company. It also affects all other decisions within operations management. The decision to implement total quality management concepts throughout the company is strategic in nature. It sets the direction for the firm and the level of commitment. For example, some companies may choose to directly compete on quality, whereas others may just want to be as good as the competition. It is operations strategy that then dictates how all other areas of operations management will support this commitment. Also, supply chain management is affected as our commitment to quality translates into partnering with suppliers. As you can see, virtually every aspect of the operations function must change to support the commitment toward total quality management. [2]

However, shipping industry is one of emerging sectors contributing a significant role to develop the economy of Bangladesh. .In addition, the market of small-ships and vessels of various types is remaining unaffected by ongoing global recession. Recession has caused a drop in demand for large vessels. Global giant shipbuilders cannot capitalize on this new market demand, as their projects will prove to be unfeasible because of the high overhead costs they already bearded. So far Bangladesh does not face any major blow like cancellation of orders.

Critical Success Factor for TQM

Critical success Factor is the term for an element that is necessary for an organization or project to achieve its mission. It is a critical factor or activity required for ensuring the success of a company or an organization. TQM CSFs have a positive impact on the

operational performance i,e. TQM firms performs better in contrast to non-TQM firms in operational performance such as improving delivery performance, reduction in production costs, increasing productivity, improving flexibility, reducing scrap and improving the quality of products. And the term key success factor can be used in four different ways:

a) as a necessary heuristic tool for managers to sharpen their thinking.

b) as a necessary ingredient in management information system.

c) as a description of the major skills and resources required to be successful in market.

d) as a unique characteristics of a company.

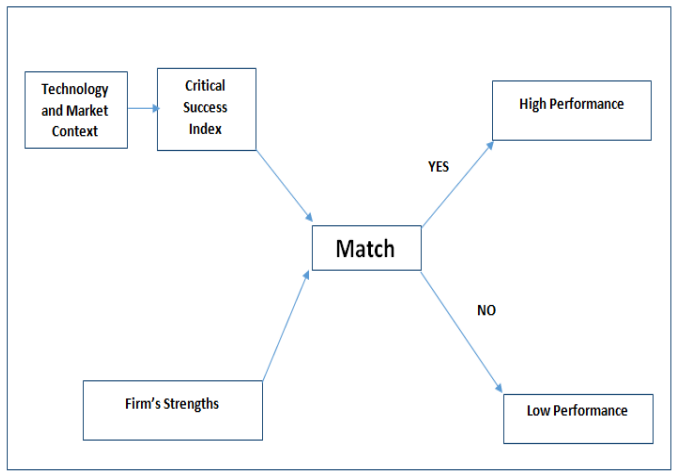

Fig 2. The shared experiences view on key success factors (From Sousa de Vasconcellos & Hambrick;1989)

RESEARCH METHODOLOGIES

In this study, two process are followed to accumulate the data; a) Face to face semi structured interview (Qualitative research methods), b) questionnaires (Quantitative research methods) and c) observation. The interview method is mainly used to support the finding while questionnaires aimed to identify critical success factor of TQM implementation in ship building industry and finally observation process is use to compare between these two methods.

Face to face interviews were conducted with the key persons of different departments of ship building industry to find out the issues that are related to TQM implementation and recent struggle of this industry.

Questionnaires often seem a logical and easy option as a way of collecting information from people. They are actually rather difficult to design and because of the frequency of their use in all contexts. However, personally administrative questionnaires were asked among the workforce of different shipyards to identify the critical success factor and the barrier that they face regarding this issue.

FINDINGS OF CRITICAL SUCCESS FACTOR

The factors of the survey can be carved up into two ways:

1. Individual level factor
2. Group level factor

Individual level factors

The individual factors found through the survey are discussed below:

Proper vision & plan

Organizations around the globe develop strategic plans. They carefully create a vision of their future and the strategies needed to get there. But many fail to realize their vision and fail to deliver the expected strategic results. Unfortunately, executive teams cannot pinpoint the reasons for this dilemma so they repeat the strategic planning cycle over and over, always hoping that the next strategic planning session will bring better results.

Top management commitment

In shipbuilding industry, top management must be willing to invest for the long-term if the TQM implementation is to have a positive long-term affect on the company. Meeting the minimum requirements of the standard is like targeting mediocre or sub-standard quality for the company's process and products will trigger a poor reputation for the company, limited growth, and usually an ongoing struggle for profitability.

Dynamic leadership

Dynamic leadership is upmost requirement to flourish the ship building industry. Leadership is about influencing relationships between and among individuals, teams, organizations, Dynamic leadership is enacted with technical knowledge and skills for leading change and turbo-charged by using power and political skills in ethical ways.

Education & training (empowerment)

Employee empowerment is the vital fact to proper TQM implementation in shipping industry. Proper education and training of the employees can change the financial mode of an

organization. Through empowerment confident leaders can be created who elevate others & keep their finger on the pulse of organizational life.

Employee fulfillment (recognition & reward)

Employee attitudes typically reflect the moral of the company. In areas of customer service and sales, happy employees are extremely important because they represent the company to the public. Satisfaction, however, is not linked solely to compensation. Sure, a raise or benefits will probably improve employee contentment, at least temporarily, but small, inexpensive changes can have a long-term impact. Employee fulfillment can cheer up the performance of the employee and stimulate them to perform more.

Better customer service

Effectively identifying your customers, consulting them in a meaningful way and efficiently measuring the outcomes of your service are a vital part of this approach. It's not just about being able to collect information; it's about having the ability to use that information. Absence of better customer services impedes to implement TQM in shipbuilding industry.

Continuous improvement process

Continuous improvement must deal not only with improving results, but more importantly with improving capabilities to produce better results in the future. The five major areas of focus for capability improvement are demand generation, supply generation, technology, operations and people capability.

Development of human resource department

HRD is very much important to execution of TQM Properly. They should take the lead role regarding this issue.

Group level factors

Strong group cohesiveness

Cohesion can be more specifically defined as the tendency for a group to be in unity while working towards a goal or to satisfy the emotional needs of its members. Its dynamic nature refers to how it gradually changes over time in its strength and form from the time a group is formed to when a group is disbanded. Its instrumental basis refers to how people cohere for some purpose, whether it is for a task or for social reasons. Its upmost requirement for ship building industry to execute TQM practices.

Strong level of cooperation among the workforce

Through strong level of cooperation better TQM execution can be possible in ship building industry.

HINDRANCE TO TQM IMPLEMENTATION

The major barriers are:

Lack of proper strategic planning & vision

A vision statement is a mental picture of what you want to accomplish or achieve. When people focus on the vision, their daily activities are automatically directed towards achieving the vision. Lack of proper strategic plan and vision are responsible for poor execution of TQM in shipyards.

Anti-industry mindset of nation

Construction, maintenance, and repair activities involve the generation and daily handling of a large number of toxic materials, fumes and fluids. Solvents, which are frequently used to clean/degrease parts and tools prior to and after machining, can lead to fugitive air emissions. Emissions from welding include GHG, toxic chemicals, which include ozone (O_3), particulate matter (PM), carbon monoxide (CO), nitrogen oxides (NOx), sulphur which are very harmful for the environment. Many construction, maintenance, and repair activities are major sources of noise, particularly operations that involve metal working, the use of heavy equipment and vehicles, abrasive blasting, and chemical and mechanical paint removal such noise naturally affects the people who are engaged in the noise generating activity, as well as those located in the vicinity. And this is acute in Bangladesh. For these reasons, Bangladeshi people possess an anti-industry mindset against this industry. Therefore, for the recent year they facing bit problem to execute their business properly.

Lack of proper marketing

Marketing of shipping companies is not only concerned with the development and implementation of successful strategies. For marketing to be successful there needs to be a marketing orientation throughout the company which fosters the marketing concept and demonstrates a marketing approach to all internal and external activities. It's quite absent in Bangladesh.

Delay delivery

Most of the shipyards in the company fail to meet the deadline to deliver the ship to the buyer. Therefore they certainly bring negative impression on buyers which trigger monetary losses & ultimately have an effect on TQM execution in ship building industry.

Working environment

Working environment is a vital issue to implement TQM. Poor & filthy working improvement is also liable to TQM implementation in shipyards of Bangladesh.

CONCLUSION

As long as this is the primary survey to investigate TQM execution in the field of ship building industry in Bangladesh and within a short period of time 10 success factors & 5 major barriers are found to execute this issue. Therefore, further detailed and well directed researches & analyses are suggested to find the factors to implement the TQM and upgrade the overall performance of the industry. In addition, if ship building industry authorities take proper & justified initiatives to eradicate the barrier associated with implementation of TQM in this sector, certainly it will benefit the whole organization.

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