

TQM for Bangladesh Power Generating Sector

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Abstract

Bangladesh Power Development Board (BPDB) is the most important and largest organization of Bangladesh in power sector. BPDB has taken some managerial changes and reforms in power station to increase its managerial strength in the light of TQM. But some problems have arisen that may terminate the TQM activities. So, this paper became to find out these problems and take some measures to solve these barriers considering the national interest. Some recommendations are made for successful implementation of TQM in BPDB. The proper application of the recommendations will be helpful to improve the present situation of Total Quality Management in BPDB and thereby will be possible a sound operation of Bangladesh Power Development Board as per Total Quality Management.

Keywords

TQM-Total Quality Management, BPDB- Bangladesh Power Development Board, IPP- Independent Power Plants, CBA-Collective Bargaining Agent

1. Introduction

Total electricity generation was under control of BPDB. But presently, BPDB generates only 65.04% of the total electrical energy. Now, 34.96% of total energy is generated by Independent Power Plants (IPP) [1]. Independent Power Plants (IPP) started their mission from 1998 and is continuously increasing their strength in power sector. If such situation continues, once IPP will control our power sector. If BPDB fails, it is common thought that they will also control the economy of the country. This does not mean to avoid IPP. Power station under BPDB should increase with its own strength and compete with IPP by fair-means, because consumers always get the highest benefits from the competitive market. So for a safe competitive market, existence of power station under BPDB is too much essential as a soldier of power sector of the country. It is sure that an organization needs proper management activity and vision to stabilize its own strength. That's why TQM implementation in BPDB is essential. Total Quality Management is a developed management process by which many countries have reached at the peak of the development. Unexpressed knowledge and ideas of the general workers can be brought into daylight for the development of industries and products. By this management process, unskilled and semiskilled workers make themselves expert through sharing their knowledge and experiences with expert workers. In this management system employees can enhance their ideas through discussing. TQM creates new consciousness and improvement of existing product or service in a new direction. As a result, most of the cases, the product or service gets the highest position in the competitive market [2].

2. Existing Problem in Power Generating Sector

The main problem of power generating sector in Bangladesh are as follows: BPDB has already started TQM in its different offices, by implementing TQM properly and significantly most of the problem can be eliminated.

1.	Lack of management commitment	6.	High operating cost
2.	Defective procurement system	7.	Excessive employees
3.	Failure in planning	8.	Misguided Collective Bargaining Agent
4.	Inefficient organizational activities	9.	Indiscipline in management
5.	Crisis in power generation		

3. Progress of Total Quality Management in BPDB

A directorate named TQM promotion office has been created in August 2002 to look after TQM activities in BPDB. TQM is under implementation in 190 offices in BPDB. 639 numbers of Quality Control (QC) circle are working actively in 190 offices under the guidance of TQM promotion office. 157 numbers of steering committees are working to monitor the activities of TQM in 190 offices. Zonal competition held regularly in 6 zones from August'05 to February'06. Internal QC circle convention of BPDB held regularly. Monthly meeting of TQM task team held in every month to monitor the TQM activities in selected offices. TQM training has been imparted to 4453 number of officers & Staffs till FY 2008. JICA is supporting through technical assistance to promote TQM in BPDB [3]. Table 1 indicates the real situation to implement TQM in BPDB is not satisfactory.

Table 1: Record of meeting of Quality Control (QC) circle in a power plant

Name of division	Name of QC circles	Level of education of supervisor of QC circle	No. of meeting (Target)	No. of Meeting (Actual)
Instrument & Control	QC circle-01	Bachelor degree	230	22
	QC circle-02	Below SSC	230	12
	QC circle-03	Bachelor degree	230	22
Electrical maintenance division	Bizli-01	Diploma(E & E)	230	10
	Bizli-01	Below SSC	230	08
	Bizli-01	Below SSC	230	08
Mechanical maintenance division	Bhairab	Diploma(E & E)	230	12
	Modhumoti	Below SSC	230	06
	Rupsha	HSC	230	08
	Sundharbon	Below SSC	230	04
	Shapla	Below SSC	230	03

4. Problems to Implement TQM in BPDB

4.1 Lack of Management Commitment

Commitment can be defined, as the individual's certain feelings related to organization that must be carried out. Bangladesh Power Development board is government organization, here planning of any activity starts from high level of authority. In most cases, actual data are not collected from the root level. Asian Development Bank, World Bank or any other donor agencies dominate money as the stakeholder & also provide guidelines how to use it. So, commitment does not coincide with the general staff's requirements. Again, most of the time, top management takes plan and implement, as their own thinking they don't monitor it through continuous supervision. As a result, many projects do not come to success effectively after completion and a loss is then the result of action. What authority or management wants to do is not understandable and the management view do not intersects with the demand of general staff. Due to lack of management commitment workers of Bangladesh Power Development board are of highly mismanaged. Here, absenteeism is too high, high rate of work stoppage or breakage, high rate of grievances, and finally lack of productivity or efficiency [4].

4.2 Defective Procurement Plan

At the beginning of every fiscal year, each department of Bangladesh Power Development Board prepares annual procurement plan for purchasing materials. In case of emergency repair & unavailability of required materials due to lack of storage & lead-time local authority carries out local purchase through RFQ (Request for Quotation), RTM (Restricted Tendering Method), DPM (Direct Procurement Method) & OTM (Open Tendering Method). In case of foreign purchase, list of required materials are prepared by local authority and then it is sent to Purchase Directorate. Drawbacks of existing procurement policy: (1) At the time of preparation APP (Annual Procurement Plan) lead time is not considered, so, in case of emergency repair, sometimes materials are not available and thereby undesired interruption of plants. (2) Materials lists are not prepared as planned way. Some material that are purchased frequently creates storage problem where as some are of very irregular duration as a result crisis of a specific event occurs sometimes. (3) Lack of co-ordination between inter departments during purchasing.

4.3 Problems Related to Collective Bargaining Agent

Collective Bargaining is the process used to make agreements between management and labor unions. Collective Bargaining Agent is the respondent of general worker elected or nominated by workers. They act as the bridge of

communication between workers and management. They place the demands of workers to the management and try to solve them as per labor laws, rules & regulation of organization and also the constitution of the state. In BPDB, CBA was established in 1972. Collective Bargaining Agents (CBA) are normally elected from direct vote of general workers. Obviously, the workers expect that CBA will bargain with management, to preserve their rights. The rights may either legal or illegal, a huge number of workers meet with CBA daily & keep them busy. To be elected, they need worker's vote & keeping this in mind, CBA try to satisfy most of the workers. All most everyday CBA faces management & involved in bargaining with management to solve various problems related to workers. When management fail to attend an illegal issue, CBA go against management & sometimes they become so ferocious that the situation is indescribable. Sometimes CBA receive illegal benefits from workers to solve their problem. CBA try to solve the problem either pursuing the management or by creating pressure. In case of failure, they misguide the general workers and insist the workers to attack management sometimes. When adverse situation arises between CBA & management in favor of any issue, political leader protect workers leader and give them shelter. As a result, management doesn't take legal action against the sinful workers & their leaders. Day by day the situation has gone to worse position in our country & a picture of CBA was observed by the citizen while a program against corruption has been carried out by the Care Taker Government recently. Now a day's management does not handle CBA but CBA handle management.

4.4 Problems of Excessive Employees

Every department has too many employees than required. During study, the legal authority of each department informed that total numbers of employees are not required at a time in repair or maintenance works. Most of the workers don't have any work and they pass their time by gossiping in respective section most of the time. During working hours (8 am to 4 am) normally they don't perform any activity. After end of the working hours, sometimes they engage in works & claim extra benefit as over time for such works. For mismanagement & over setup, per unit operating cost is high in BPDB.

5. Instrument of the Paper

During data collection, different categories of workers (Foreman C and D, switchboard authority-A, B and C, electrician-A, B and C) and managers were interviewed based on the level of technical knowledge, experience, and also education level. The respondents as interviewee were limited to 120 numbers for employees and 20 Managers. Two sets of questionnaires one for workers and another for managers were prepared to collect information through interview.

6. Data Analysis

6.1. Knowledge of Workers on TQM

Knowledge of workers on Total Quality Management based on data collected from the questionnaire:

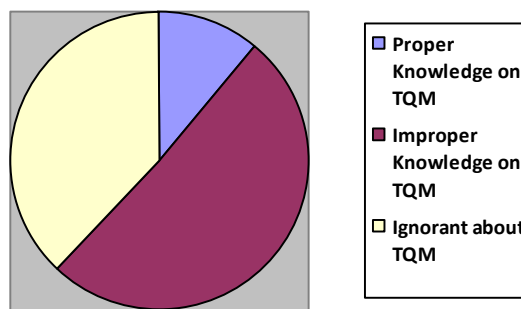


Figure 1: Knowledge of workers on TQM

6.2 Knowledge of Workers on Existing Service Rules

Most of the workers do not know their service rules [5]. Table 2 shows the relevant data.

Table 2: Workers knowledge on present service rule

Respondents	Knowledge on present service rules	
	Yes	No
Number (120)	15	105
Percentage (100%)	12.5	87.5

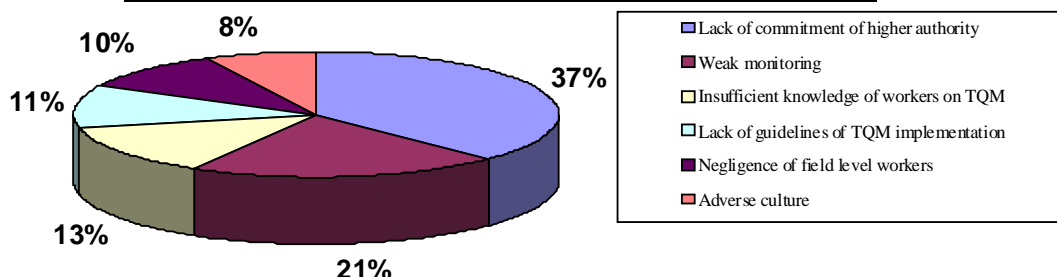


Figure 2: Main causes of failure to implement TQM as per workers view

6.3 Means of Successful Implementation of TQM as Per Workers View

It was tried to inquire about the means of successful implementation of TQM in PDB from workers (Table 3) and managers (Table 4) respectively.

Table 3: Means of successful implementation of TQM in BPDB as per workers view

Sl. No.	Suggestions	No. of workers supported	Percentage
1	Awareness campaign	45	42.45%
2	Provision for punishment or reward	21	19.81%
3	Assure government monitoring	15	14.15%
4	Rapid training program	12	11.32%
5	Ensure proper monitoring from TQM promotion office	07	6.60%
6	Others	06	5.60%

Table 4: Means of successful implementation of TQM in BPDB as per managers view

Sl. No.	Means of successful implementation of TQM in the power generating sector	No. of managers supported	Percentage
1	Ensuring proper monitoring from TQM promotion office	16	30.67
2	Continuous supervision from higher authority	11	21.15
3	Awareness campaign	9	17.30
4	Provide proper training	7	13.46
5	Provision for reward or punishment	5	9.61
6	Others	4	7.60
Total		52	100

7. Main Obstacles to Implement TQM

7.1 Improper Training

Bangladesh Power Development Board (BPDB) has a training directorate. TQM promotion office and training directorate jointly arranges training courses on TQM both for employees and officers of BPDB. The duration of each training course comprises of 10-12 trainees is at best 10 days. The motion of the training courses remains so to train all the staffs of BPDB will take several years. Again the evaluation system of present training is defective and is not suitable for the trainees to earn about TQM. If, there is provisions of fail or pass as a part of evaluation and it would have a reflection in promotion or increment of the employee, the trainee would be more attentive and the courses must be fruitful. So, evaluation technique of the trainees needed to review.

7.2 Pressure from Collective Bargaining Agent

Collective Bargaining Agent CBA is an obstacle to implement TQM. In respect of our country, CBA in every organization is uncontrolled. CBA always avail illegal benefits from authority to keep them in trouble. CBA is strongly liable for the present adverse situation of BPDB. They want to keep this situation alive for their interest. They misguide the workers that TQM is a foul management system and it is a part of privatization. If TQM is effective in BPDB, the excessive employees will be terminated. The general workers being misguided believe them and they do not feel interest for TQM.

7.3 Existing Rules in Service Rule

Present service rule of BPDB is very much traditional. According to these rules to take legal action against an unruly employee is time killing. As a result, the management does not show interest to take legal action against employees in case of any irregularities. For this reason the employees of BPDB has become uncontrolled. Again as per present service rule, there are provisions of different type allowances for employees like over time allowance, washing allowance, travel allowance, shift allowance, medical allowance and other convinces. So the employees are more beneficiary than officer as per present service rule. Most of the present employees have the myth that if TQM is effective in BPDB, they will lose these extra allowances. Again some employees have belief that they will not be able to suit with this modern management system in the light of TQM and will lose their jobs.

7.4 Cultural Barrier

Present culture of BPDB is too much adverse to TQM culture. For TQM implantation to change this culture is very essential but it is difficult. The higher authority should be positive with these changes. First of all, supreme authority must be satisfied with TQM culture and then it is necessary to give a clear conception about TQM among the employees through TQM promotion office.

7.5 Less Budget to TQM Program

There is no extra allocation for TQM in budget of BPDB. For every meeting of QC circle, each member gets ten taka as entertainment. The amount is too less that the members of QC circle do not feel interest about QC circle meeting. No budget is allocated for awareness campaign.

7.6 Lack of Proper Guidelines

There is monetary involvement to solve few problems identified in QC circle. But there is no clarification of fund of this amount in the guidelines provided by TQM promotion office of BPDB. Even no guidelines on problem identification are provided by TQM promotion office in QC circle meeting. The scope of works of facilitator is also not provided in guidelines of TQM promotion office. Lack of guidelines is an obstacle to implement TQM.

8. Recommendations for Successful Implementation of TQM

8.1 Cultural Change is Essential

To implement TQM in BPDB a cultural change is essential and the higher authority should be positive with these changes. First of all, supreme authority must be satisfied with TQM culture and then it is necessary to give a clear conception about TQM among the employees through TQM promotion office [6].

8.2 Rapid Training Program

Training Directorate of BPDB introduces training program as per guidance of TQM promotion office. The state of moving training program is very slow. The training program should be quicker in motion than the present state to implement TQM within a short time.

8.3 Providing Necessary Logistic Support

Logistic support is very much important to solve the problems to implement TQM. TQM system always favor logistic supports. Without logistic supports many problems are not easy to solve. Then, Quality Control (QC) circle members become misguided to solve their stated problems. Due to not providing logistic supports different types of crisis are as usual in BPDB. Crisis is one of the most important factors that led to employees in frustration. To overcome these situation necessary logistic supports is mandatory from higher authority.

8.5 Awareness Program

Most of the managers, union leaders and employees are not dissatisfied with these present situations because they have the self-interests. They involve themselves in corruption and earn huge amount of money. Some of them are applying legislative power to fulfill their interests. Many of the employees are afraid about the changes in light of TQM. They are afraid that they may not adapt with the new changes and may lose their jobs. They are very much afraid that they may not suit themselves in the modern management after implementation of TQM. To overcome these situations, an awareness program must be carried out among all the employees of BPDB.

8.6 Visionary Leadership

When all employees of BPDB will be aware of their current reality of present traditional system and the bad future like BJMC or BCIC, they will be careful about their present haphazard situation. They should be aware that they are not getting better payment for their works and in the next they will fail to survive in the competitive market. A visionary leadership can inform them with the betterment of the future initiatives in the light of TQM implementation. Then the dissatisfaction in the organization will occur and will be easier to implement TQM.

8.7 Unethical Behavior Should be Rectified

In BPDB, unethical behaviors are very much common. Threats, misconducts, waste of time, waste of materials, are available in this control management system. To eliminate these behaviors, ethical management program must be set among the whole organization. The consciousness of every employee grows through ethical management programs. These types of videos that develop ethical sense, leaflets, papers, and magazine may be distributed among the managers and employees. It must be noted that unethical behaviors create mistrust among the staffs in the organization.

8.8 Participated Management is Essential

Presently, administration of BPDB is bureaucratic and centralized. The legislation power is thrown from the top of the management to bottom. Most of the time, the decision-making authority is not experienced with the working field. So the mission of the top authority does not coincide with the field level staffs in most cases. In BPDB, an adversarial relationship exists in working place. Employees do not help each other to sustain their individual status. BPDB must create such a participative management so that every employee will work for the common goal and share the benefits.

9. Discussion

It is essential to succeed in a business. As the world changes, business expands with its changing nature. Total Quality Management ensures the demand of customers in this changing nature of business. Creation of a TQM culture requires top management commitment and direction to ensure the right attitude for improvement of organisational environment. It also requires a well-developed Quality Management System (QMS) which defines managerial processes and describes how they are to be integrated with all internal and external Customers, Suppliers and related Service Providers. In BPDB, there is some problem to implement TQM. To overcome these problems it's necessary to monitor TQM activity from TQM promotion office, to continuous monitoring from higher authority, to raising awareness, to ensuring proper training, to make provision of reward for motivation etc. An effective model is needed which can create an environment to implement TQM. Present paradigm or concept of traditional system must be shifted to new quality culture. Quality thoughts must be grown among the employees and managers. Preference should be given to the participative management than control management. Top management vision and mission must coincide with middle management, bottom management and the general employees. When all staffs of the organization will be dissatisfied with the present management system, then Total Quality Management implementation will be easier.

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Nomenclature

<i>Symbol</i>	<i>Meaning</i>	<i>Symbol</i>	<i>Meaning</i>
APP	Annual Procurement Plan	JICA	Japan International Cooperation Agency
BPDB	Bangladesh Power Development Board	OTM	Open Tendering Method
CBA	Collective Bargaining Agent	QC	Quality Control
DPM	Direct Purchase Method	RFQ	Ready For Quotation
IPP	Independent Power Plant	TQM	Total Quality Management