

EFFECTIVELY MANAGEMENT SYSTEM IN THE CONSTRUCTION

Desalegn Ayele Alemayehu¹

¹Leuturer, Department of civil Engineering, Woliata Sodo University, Ethiopia

ABSTRACT - A successful Project Manager must simultaneously manage the four basic elements of a project: resources, time, money, and most importantly, scope. All these elements are interrelated. Each must be managed effectively. All must be managed together if the project, and the project manager, is to be a success. Further the management system could be achieved by the formation of a national council for training of construction labour and executive personnel. Formation of a national council for production and supplies of construction materials and equipment resources also achieved good management system. Setting up a national committee to evolve the universal contract agreement form for Indian conditions Formation of a national council of construction management with its organization management with its organizational pattern will leads to successful management system.

1. INTRODUCTION

The construction industry in India has grown into a vital component of the national economy- next only to agriculture. About 60 % of the plan outlays are allotted for construction activities. Most construction projects in the public sector as well as private sector involve specialized equipment and intricate installation required special know-how and skills. The construction industry is a complex, challenging and hazardous field with high risks, uncertainties and fit falls and the operating environmental is also not congenial for smooth working. A large contracting company has developed these organizations on commercial lines following modern management techniques. Several firms have also failed in their business due to lack of management concepts and experience coupled with non- application of improved construction techniques and unsound business approach. A good deal of miscarriage of the judgment in contract agreements has led to their fall. Management of the construction industry is not only the problem of private contracting firms but more so of the construction departments of the Government. Being the custodian of public funds as also the welfare of the people, the government should maintain the construction activity free from unhealthy practices and thus become a model employer of contractors. It is therefore, important that this industry with its vast scope, volume and variety of works involved, received more attention for its organized growth. To organize and develop the industry on scientific basics, sufficient management's thoughts must be given to investigate the elements which dampen construction activities. Having recognized the hurdles and their magnitude, solutions are offered for smooth functioning of construction activity by contractors.

1.1 Fundamental Concepts for Owners -- Builders Operation

In this approach an owner must have a steady flow of on-going projects in order to maintain a large work force for in-house operation. However, the owner may choose to subcontract a substantial portion of the project to outside consultants and contractors for both design and construction, even though it retains centralized decision making to integrate all efforts in project implementation.

2. STATUS OF LABOUR AND AVAILABILITY:

A large work force of skills, semi- skilled and un-skilled labourers is employed in the construction industry. Most of the workers are agricultural labors from village seeking employment during lean seasons. They are not available when agricultural. Operations are in full swing. As a result, during peak of construction activity sufficient workers are not available. There is no set up to import training to workers engaged in various construction .Workers are illiterate and skills are passed down from generated to generation but no worth wide training facilities are available to those who form the bulk of the manpower. Therefore it is necessary that untrained labor and their non-availability should be recognized as a significant constraint in the progress of construction activities.

2.1 Formulation of National Council for Training of Labour:

Setting up a national council for proper training of tradesmen and technicians is vital. It is possible to shift a worker from one job to another because of the diverse nature of the job and this may provide less change to loss a job in preference to facilities available for the growth of a worker.

3. STATUS OF EXECUTIVE PERSONNEL:

Modern construction projects are ambitiously conceived and complicated structured design and more complex in their nature is erected. Construction planning and execution are a combination of speed, safely, efficiently and economy, knowledge of material and equipment and their management helps in decision making on scientific basis to achieve economy. Replacement, maintainability and reliability models providing logical and analytical techniques to improve decision making on scientific basis are used in construction practices. The construction executive should be trained to use operations research techniques for making fruitful economic decisions. It shown for their application in the construction industry, unfortunately, it become very difficult for field engineers posted at remote worksite to avail of the limited opportunities of training facilities.

3.1 National Council for Training of Construction Executives:

Before such a council comes into being government departments in coordination with professional institution may offer training courses during suitable off seasons or vacations and get trained personnel. An academy of administration in institution in their region can prepare suitable programs

3.2 Brain Drain and Skill Drain:

In spite of the unemployment on a large scale in the construction industry, there is always shortage of certain types of skilled tradesmen and technicians. The situation is aggravated in recent years by outflow of skilled technicians to the gulf region and other countries offering those better benefits and working conditions. This has adversely affected the quality and availability of construction works in the country. Rising cost of labour compared to prevailing economic conditions have considerably escalated project costs.

3.3 Methods to Control Exodus of Skilled Personnel:

Formation of a council at national level to control exodus of skilled personnel from the country may provide proper check on the brain drain and skill drain and curb exodus of technical personnel. This council may also evolve suitable methodology to bring back workers to serve their own country.

3.4 Labour-Employer Relationship:

Indian workers are becoming more conscious about their wages rather than their work performance. In the present climate and rise in commodity prices, managements' lack to enforce the law is felt. A manager cannot discipline the truant worker with an elaborate set of official producers and even then he runs the risks that his action will not be liked by his superiors. The critical factor in the overall situation is the parties' consciousness of their relative bargaining strength. In some construction projects strikes have delayed completion by several months if not years and also giving rise to increased construction cost.

3.5 Council for Personnel Placement:

Establishment of a council to improve relation between labour and employer may provide workable guidelines for government authorities. This will put an end to relitigating away of scarce resources through removal of strained labor management relationship into a cordial and harmonious one. Projects of national importance therefore must be given top priority to carefully see that all such hurdles are removed in the national interest and execution of projects taken up earnestly

4. DEMAND AND SUPPLY OF MATERIALS AND EQUIPMENT:

Resources for any large complex construction projects, apart from fiscal resources included land, labor, fuel, materials, machinery and equipment, spare parts and properly marshaled adequate supervisory staff. Timely completion of projects is ensured if these resources are made available to the projects as and when required and in right quantity, presently availability of these resources has become so unimportance projects of national importance have pushed up target dates of completion by several years leading to escalation of final costs. Application of network techniques of construction management in the Indian context has been presented elsewhere. An example of the pinch hydroelectric project at total adhoc in the Nagpur district of Maharashtra state has also been shown as a case study.

5. ARBITARATION IN CONSTRUCTION DISPUTES:

In pre Independence days, there were hardly any contractual disputes when there were no controls nor scarcity of materials existed. There were also no such bodies as technicians and vigilance cells. Financials audit was not so rigid and they examined contracts and their implementation keeping in view the field and working condition. The relationship between the departmental engineer and the contractor was cordial, each looked to the problems and difficult of the other with a sense of righteousness. Decisions of executive engineers were hardly challenged or commented upon by the audit and account personnel. With the launching of five-year development plants, construction activities increased manifold and many gigantic projects involving hundreds of millions of rupees were taken up. With the tempo of construction firms came into existence. These firms have experienced managed and qualified engineers to execute the projects successfully and efficiently. The standpoint that a contracting agency can be punishable for loses, even delay in supplying designs, drawings and materials and handling over the construction site on the part of the government department, has changed. Arbitrary actions by governments are resisted by contracting agencies and thus disputes do arise. Because the departmental engineer believes that his decision will be questioned and his motive believes that his decision will be questioned and his motives wrongly attributed, his technical and financial advisors find it easier to let a dispute got arbitration. This leads to increase in the number of arbitration cases thereby delaying completion of projects.

6. REVISION OF CONTRACT AGREEMENT FORM:

During the last two or three decade’s scores of arbitration cases have been decided. Keeping in view the judgment of the courts of law in respect of the awards of the arbitrators challenged in courts, it is necessary that the contract agreement forms should be revised and conditions of an agreement so framed on the basis of equity and justify to the both parties. A number of committees were set up in the past to revise the contract agreement form evolved during pre-independence period. Some changes such as provision of arbitration clauses have been made but still the revised form does not meet the requirements that are necessary in the changed circumstances prevailing in the country. Government departments as well as contractors are equally response to fulfill their obligations and so contact agreements forms should provide class which should be fair from the point of equity and justice for both the parties in case of default or lapse. The committee to revise the contract agreement form to be set up by the government of India may consist of representatives of engineering departments, contractors, audit, finance, and law departments. The forms so evolved should be universally used by the central and state governments, public sector undertakings and even private agencies. These standard conditions and clauses should not be changed by individual engineers. Sometimes by attaching special conditions ambiguity or misunderstanding is created.

Table 1: Problems and Remedial Measures

PROBLEMS AND REMIDIAL MEASURES		
Investigation area originating problems	Recognized impediments	Remedial measures
Status of labour and their availability	Untrained labour and irregular attendance	Formation of a national council for training of construction labour
Status of executive personnel	Untrained executives	Formation of a national council for training executive personnel
Brain drain and skill drain	Uncontrolled draining of brain and skills	Formation of a high powered council at national level for controlling personnel exodus
Labour-employer relations	Discordant labour- employer relations	Formation of a national council for placement of personnel, wage and welfare measures
Demand-supply position of materials and equipment	Imbalanced demand-supply of construction resources	Formation of a national council for production and supplies of construction materials and equipment resources
Status of arbitration cases in construction contracts	Increasing Trent of arbitration cases due to unrevised contract agreement forms universal in nature	Setting up a national committee to evolve the universal contract agreement form for Indian conditions
Status of unitary control on construction activity in India	Absence of unitary control and lack of effective organizational pattern	Formation of a national council of construction management with its organization management with its organizational pattern.

7. UNITARY CONTROL ON CONSTRUCTION ACTIVITY :

To prevent the situation from further deterioration adequate facilities must be provided to overcome the hurdles in the successful management of contraction activity in the country as a whole. Remedial measures should be taken up by a body of policy makers should be taken up by a body of policy makers at the top most level for implementation and effectively control the entire construction activity in the country. In the absence of much a powerful body at the center for initiating for action and monitoring feedback information to modify polices and action, the activities may result in failure. Hence, such a council, centrally co ordinating, has to be created to achieve a unitary control over construction activates throughout the country. The short coming experienced at present in construction management may be due to the absence of unity center to control with its line organization pattern.

8. NATIONAL COUNCIL CONSTRUCTION MANAGEMENT:

Formation of a national council of construction management consisting of experienced engineers executives and experts in construction, purchase, scheduling, costs, and quality control and management of work in multi-discipline organizations is necessary; such a council can provide expertise in design, construction, execution and arbitration. The council may be given overall responsibility of construction management in the country to look after successful implementation of national plan projects.

9. CONCLUSIONS:

After investigation the factors which retard construction activities in the country, remedial measures are presented in Table 1. There is an urgent need to appreciate these measures as recommendations for implementation by a competent authority to achieve economy in projects construction. Managements of the construction industry should be organized in an integrated manner by establishing a national council of construction management. The council should coordinate and improve all activates of professional bodies working under it. This new line of organizational pattern may help achieve successful implementation of plan projects in the country.

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