

Shipbuilding industry in bangladesh assignment



This report gives an overview of the different aspects of Project planning and management in Ananda Shipyard and Slipways Ltd. 1. 1 Origin of the Report Ms. Sutapa Bhattacharjee, Lecturer, Institute of Business Administration, University of Dhaka, orally instructed the students of MBA 42nd batch to prepare a formal business report on any management topic. The students had to form a group of 5 persons to prepare the report. This report is prepared to comply with that instruction. 1. 2 Purpose The reports primary purpose is to comply with the partial requirement of course Management of Organizations.

The secondary purpose is to describe projects from the perspective of a company with a project driven production. The report also aims at explaining the project planning and management of Ananda Shipyard and Slipways Ltd, the leading shipyard in Bangladesh. 1. 3 Scope The report is informative in nature. The study covers different stages of Project Planning and the Project organization structure. The findings are strictly based on the information provided by the respective personnel and website of Ananda Shipyard Ltd. 1. 4 Limitations

The authority of the Ananda Shipyard thinks some of the information as sensitive. They provided only a little information regarding the time frame of completion of particular step of Project. As maximum information was collected through interview the authenticity of the information may vary a little with the fact. However, the management of Ananda Shipyard refused to allow a visit of their shipyard. 1. 5 Sources and Methodology To collect the information both primary and secondary sources were used. A specific research methodology was followed for primary sources. . 5. 1 Sources. This

report is mainly based upon primary sources. However, some secondary sources, such as publications and web pages were consulted for an understanding of the Shipbuilding Projects.

1. 5. 2 Methodology. To collect information from the primary sources, the following techniques of research were used:

1. 5. 3 Collection of Data. To collect information from the primary source Mr. Asadujjaman Sarder, Naval architect of Ananda shipbuilder was contacted and informally interviewed.

1. 5. 4 Interpretation of Data and Presentation of Facts.

The information, collected from the relevant personnel and onsite studies, were first recorded and then interpretation of the information was made. The significant findings are presented systematically throughout the report.

1. 6 Report Preview The report is arranged sequentially to describe the project planning and organization of Ananda Shipyard and Slipways Ltd. This report starts with the company profile and history. The next chapter discusses about the characteristics of a shipbuilding company. This chapter gives an idea about the nature of shipbuilding organization.

Next chapter gives an insight about the project organizational hierarchy and the personnel working in this hierarchy. The following chapter discusses about the project activities and management in Ananda Shipyard. This chapter also talks about the typical steps taken to finish a project within timeframe. Finally a chapter summarizes the findings.

2. Company at a glance Name: Ananda Shipyard and Slipways Ltd (ASSL) Location: Head Office: 10/1 (9th Floor), City Heart, 67 Naya Paltan, Dhaka-1000, Bangladesh. Tel :+880-2-9343436,+880-2-9352031-3 Fax:+880-2-8312681

Web : <http://www.anandagroup.biz> Shipyard: Meghnaghat, Sonargaon, Narayangonj. History of Ananda Shipyard: Ananda Builders and Engineering Firm, established a shipbuilding yard on the Buriganga River in 1983. In response to growing volume of business the yard was shifted in 1985 to its present location on the river Meghna. Ananda Builders Ltd. modernized and systemized its operations by enhancing facilities and separating shipbuilding activities under a separate banner, ANANDA SHIPYARD AND SLIPWAYS LTD (ASSL), a private company limited by shares incorporated in 1999.

ASSL is the largest shipyard among the private shipbuilders in Bangladesh. Its annual production capacity is about 6000 tonnes in terms of consumed steel and turnover per year is US\$ 14. 00 million. The quality of works has been certified by reputed classification societies & inspection agencies. In terms of equipment, manpower & experience the shipyard now ranks among top shipyards in South Asia. Ananda Shipyard has delivered a ship named “Stella Maris” to a Danish company on 15th may, 2008. It was the first ship exported by any Bangladeshi Shipyard. 3.

Characteristics of Shipbuilding Industry Shipbuilding industry is a multi project industry. To increase efficiency of the shipyard and reduce cost more than one ship are built simultaneously. For this reason coordination between different projects is very much needed. Shipbuilders view developing ship as a project. 3. 1 Project driven industry Shipbuilding is a project-driven enterprise because it exercises multiproject business. It carries out some shipping projects in a determined time period; for instance, in one business year as shown in Figure 1.

Shipping projects are carried out under the supervision of the head of project or project manager. He is assisted by the project office, i. e. support team that performs specific tasks for all project managers. This kind of a production demands optimum planning and distribution of performance possibilities such as workers, subcontractors, slipways , machinery, transportation, financing, payment, etc. 3. 2 Shipping Projects In sharp contrast to other manufacturing industries like automobile manufacturing, shipbuilders have to sell first and construct later. At first, shipbuilders sign contracts with buyers.

Then according to the buyers' demands ships are built. This is applicable for all types of ships – container carrier, oil tankers, LNG tankers, off-shore drilling vessels, dredgers, tugboats, or luxury liners. A shipping project is a sole program defined project, which starts from signing of the contract to delivering the ship to the buyer. The timeframe of shipping projects are different for each project. It depends on the buyer requirement and the size of the ship. Like any other shipyards in the world, Ananda Shipyard is also a Project based organization. 3. Types of Shipping Project in Ananda Shipyard Shipping is a way of business that is used for: cargo and passenger transport, military operations at ocean, special job carried out at sea and rivers, and different navigation linked tasks. Ananda Shipyard has completed various shipping project. By purpose-based categorization, these are: 1. Freighters a. Container vessel b. Dry Cargo vessel c. Oil tanker d. Shallow draft tanker etc. 2. Passenger ship a. Tourist ship b. Speed boat c. Pleasure craft, etc 3. Passenger-freighter ship a. Ferry b. Supply barge, etc. 4. Ships for special purpose . Dredging barge b. Hydrographic survey boats, etc. 4.

Project Organization In Ananda Shipyard, there are two organization structures, one is the management organization, and the other one is the Project organization. This paper will give an idea on Project organization. The shipping projects of Ananda Shipyard are handled by the project organization. This organization remains almost same for all the shipping projects. In Ananda Shipyard, the Project Organization usually consists of a team of qualified personnel. They manage the shipbuilding process in the shipyard.

They are provided with clearly defined communication/reporting lines, responsibilities, tasks and work steps required to move the project ahead. The Structure The project organization structure is given in figure 2. It consists of the following personnel. 1. Project Manager (PM) The PM is selected by the management of Ananda Shipyard and acts as the leader of the ship building project. He also maintains liaison with the ship-owner and keeps the owner updated about the progress of the project. He has the authority to act for and on behalf of the ship-owner and has overall responsibility for the Management.

The PM is responsible for ensuring that the management is planned in sufficient detail to reach the aim in a cost-effective way and that the work is carried out by qualified and experienced personnel in accordance with applicable instructions and procedures. The PM also monitors and ensures that the work is verified, properly documented and made at the agreed time and price. 2. Project Supervisor (PS) The Project Supervisor is appointed by the PM to ensure that the specified quality and optimum use of resources is obtained and to support the Site Chief Inspector (SCI).

The PS is the contact person towards the PM for the Management work. The PS reports to the PM. 3. Project Coordinator (PC) The Project Coordinator is appointed by the PM and acts as the coordinator of approval work and regular progress reporting to the ship-owner. 4. Site Chief Inspector (SCI) The Site Chief Inspector is appointed by the PM prior to commencement of construction and acts as the ship-owner's representative on-site and the official contact between the shipbuilder, Project Organization and the ship-owner. 5. Project Task Members (PTM)

The Project Task Members are appointed by the PM and receive written work assignments from the PM containing information about their task and scope of work, start and termination of the task and reporting procedures. The PS has discussions with the assigned PTM before any work is allowed to start in order to clarify each main step in the scope of work and ensure common understanding of the task to be performed. Self-checking of own work is carried out by the PTM and all tasks are verified in sufficient detail. 6. Admin Manager The Admin Manager is appointed by the management but he works under the Project Manager.

He looks after the administrative work in the shipyard. He resolves the issues arise from the workers etc. He ensures the availability of the resources, both material and human. This structure is responsible for completing the different stages of a ship building Project within specific time frame. Next chapter will describe the different stages of Project Planning and Execution.

5. Planning & Execution phases of a shipping project in Ananda Shipyard

Ananda Shipyard is a Project based organization. According to Management

writer Robert Kreitner, there are four distinguishable stages of any projects.

They are: 1.

Conceptualization 2. Planning 3. Execution 4. Termination The following fig-3 shows the project life cycle. Conceptualization and planning are the basic planning steps where in the first step overall project goal is measured, and in the second step the little details are looked upon. In this life cycle it is also observed that amount of financial, human and material resources are needed at most in the execution phase. In the termination phase the project is delivered to the customer. Ananda Shipyard almost follows the figure depicted above. In Ananda Shipyard, the four stages of Project Life Cycle are known as a.

Launching phase b. Project realization phase c. Guarantee phase. The launching is the conceptualization phase, the project realization phase is the amalgam of the planning and the execution phase, and the guarantee phase is the termination phase. 5. 1 Launching Phase (Offer procedure) Launching phase is also called as Offer procedure in Ananda Shipyard. In this phase Anada Shipyard has to deal with the following main aspects: 1. Inquiry analysis 2. Tender, 3. Decision to make an offer, 4. Preparations for offer elaboration, 5. Preparation of offer elements, 6. Preparation of option offer elements, . First estimates and price of offer, 8. Offer merging, 9. Preparation of offer options, 10. Offer delivery, 11. Coordination in case of close selection, 12. Final offer, 13. Signing of a contract, 14. Accepted realization study . 5. 2 Realization Phase In the Realization phase Anada Shipyard has the following aspects: signed offer, preparations for project realization, beginning of project realization preparations, launching of project realization, <https://assignbuster.com/shipbuilding-industry-in-bangladesh-assignment/>

monitoring of project sub-phases, project conclusion and launching of guarantee phase. Some important aspects of this phase are described below.

5. 2. Project initiation and planning. Ananda Shipyard's objective of project initiation and planning is to find out the needed activities and resources to obtain the sought after quality and to decide on the procedures used to control and execute the work. Actually, the idea is to give the factual information about the project and to make sure that the entire project organization is informed about the major project aspects. A project procedure manual is usually documented at this stage. 5. 2. 2 Project plan. Anada Shipyard's Project Plan spells out the division of work, responsibilities, and budgets.

It covers budgeting, project planning meeting, plan approval administration and site inspection administration. 5. 2. 3 Budgeting. Ananda Shipyard prepares an estimate of the number of workdays and other expenses for the overall extent of the work. It prepares separate cost budgets for project management, plan approval and site inspection and construction supervision work as applicable. Its budgets reflect the estimated cost necessary to comply with quality criteria, established procedures and whatever is specified in the shipbuilding contract and agreement with ship owner. 5. 2. Project planning meeting. The objective of the Project Planning Meeting is the prevention of mistakes and substandard work by reviewing and establishing sound procedures and practices for all activities that may affect the quality of the ship. Ananda Shipyard so prepares the agenda of the Project Planning Meeting that each pivotal step in the shipbuilding project is discussed systematically. A successful Project Planning Meeting makes sure

that a common understanding of the plan approval, site inspection and construction supervision and completion of the supervision is obtained.

Anada Shipyard's Project Planning Meeting covers, as a minimum: ? The organization, schedule, subcontracted works ? Procedures for modification of specifications where applicable ? Communication lines ? Plan approval procedures, list of plans for approval ? Selection of makers and purchase procedures ? Inspection during construction ? Commissioning, tests, and trials ? Delivery

5. 2. 5 Plan Approval. Anada Shipyard has to get its plans approved by the ship-owner's representative in the country.

The purpose of the Plan Approval is to assess the plans (drawings and documents used in the design and construction of the ship) to make sure that they comply with the shipbuilding contract and specification, maritime authorities' requirements, classification regulations, and the ship-owner's operational patterns (collectively known as the requirements). In addition, Anada Shipyard considers whether proper and cost effective maintenance and repair work can be made throughout the ship's life time. The representative reviews plans submitted and approves them if found to comply with the requirements.

When such plans do not cover the requirements, then Anada Shipyard is informed in writing.

5. 2. 6 Correction of Approved Plans. Anada Shipyard rectifies the plans if needed to comply with the comments from both the ship-owner's representative and the accreditation bureau, Germanischer Lloyd and submits such revised plans to either the Plan Approval Office (the office where plan approval is carried out) or Site Office (the ship-owner's

representative's office at the shipbuilder's premises) for verification that comments have been duly executed on the final drawings. 5. 2. 7 Design Changes.

Ananda Shipyard changes designs, if requested by the ship-owner during plan approval and construction. It then considers the effects in the relevant section of building specification, affect on the contract price for the change, and compliance with Requirements or delivery time. If any changes are required on the above aspects, the ship owner is then informed in writing. 5. 2. 8 Selection of Material. Ananda Shipyard selects only those materials and components that have been tested and found to be of high quality with good reliability, designed for cost-effective operation and planned maintenance routines.

Ananda Shipyard has all commercial contacts with manufacturers and evaluates their quality and delivery capability. Normally, it proposes three technically equivalent solutions and its preference to the ship-owner. However, it has to ensure and verify that the following conditions are met by its proposed components and/or materials: 1. Functionality: Components or materials have to be suitable for the required functions and the material, capacity and performance must comply with the requirements 2. Reliability: Components and systems must have reliability as required in the classification rules. . Maintenance: Maintenance process of the components must be cost effective. Ananda Shipyard evaluates the availability of service engineers and spare parts for all main components. 5. 2. 9 Site inspection & construction supervision. The aim with Site Inspection & Construction Supervision at the shipyard during construction, test and trials is to make <https://assignbuster.com/shipbuilding-industry-in-bangladesh-assignment/>

sure that the materials and components are installed and tested in a manner that assures the functionality and reliability required for trouble-free ship operation and to verify that the ship complies with the approved Plans, and Requirements.

The site inspection period is generally from the steel cutting event until delivery of the ship with a scope of work, depending on the type of ship, covering: •Hull construction •Surface preparation & anti-corrosive coating application •Machinery installation •Electrical/automation installation •Cargo system installation •Outfitting All inspections and attended tests are properly planned, documented, and the results recorded in an inspection record that is signed by the accreditation bureau, Germanischer Lloyd and the owner's representative.

The classification society plans and coordinates the site inspection tasks in accordance with Ananda Shipyard's production schedule and agreed quality plan. The following inspection methods are normally applied: ? Scheduled inspections: Scheduled inspections are performed upon request of Ananda Shipyard according to the agreed scope and list of items to be inspected by the accreditation bureau, Germanishcher Lloyd. ? Unscheduled inspections: Unscheduled inspections are carried out at random by the classification society and mainly directed at problem areas identified during the plan approval and construction phases. Inspection of incoming materials and components: Inspection of incoming materials and components is made with reference to the specification, product description or instruction manuals and reported to the shipyard. ? Inspection at subcontractors: The inspection also ensures that the storing of materials and components is safe and dry and in <https://assignbuster.com/shipbuilding-industry-in-bangladesh-assignment/>

ventilated spaces according to good ship building practice. 5. 2. 10 Monthly Report to the Ship-owner. The intention with the Monthly Report to the Ship-owner is to keep them updated the progress in the shipbuilding project.

At the end of each month Ananda Shipyard evaluates the progress in plan approval, maker selection, inspections, test and trials and prepares a report to the ship-owner covering: 1. Status of Plan Approval 2. Progress of Plan Approval 3. Manufacturer Selection 4. Accepted component makers 5. Status & progress of Site Inspection & Construction Supervision 6. Observations & corrective actions 7. Matters effecting progress and delivery schedule 8. Milestones during reporting period 9. Matters effecting contract price 10. Matters of dispute 5. 3 Guarantee phase

It consists of project conclusion, project realization analysis and guarantee conditions preparation, accepting guarantee conditions and conclusion of guarantee (this is also the conclusion of the overall project). Followings are the steps of Guarantee phase. 5. 3. 1 Tests and Trials. By attending the test and commissioning of machinery, equipment and complete systems, the classification society ensures that installations meet with the specified Requirements. The scope of work generally covers the following tasks: •Shop test of machinery, equipment and systems Tank structural and tightness tests •Dock test and trials •Inclining experiment •Sea trial •Cargo tank cleanliness test (where applicable) Ananda Shipyard prepares a test procedure for approval well before the various items are tested covering:

- Test procedure to be carried out
- Reference standard/acceptance criteria
- Performance data as per specification

The classification society is obliged to check that the shipyard has implemented a system for:

- Quality control and

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approval body •Procedure for calibration of any measuring equipment

Standard procedures for test to be carried out

5. 3. 2 Delivery.

During delivery and registration, protocols and other documents related to the ship-owner's acceptance of the ship and transfer of the ship's title and ownership is signed. Prior to the delivery the following is normally checked and confirmed in order:

- Crew is mobilized and in place for operation
- All operation and maintenance instruction manuals have been received
- Plan maintenance program is initiated
- Owners supplied items, initial suppliers, consumables, stationary and books, etc. re received and stored safely
- Necessary items for the delivery ceremony are readily available such as flags, emblems, uniforms etc.
- The ship-owner's participation during the delivery ceremony is established

Upon completion of the Site Inspection & Construction Supervision, the classification society ensures that all approved plans have been evaluated and corrected in compliance with the ship as-built. Such plans are stamped " As Built" in accordance with the established routines.

5. 3. 3 Documentation and reporting.

The supervision report, prepared by the classification society, Germanischer Lloyd documents that the work is carried out based on the established procedures and in particular that the fabrication and construction complies with the approved plans and that the inspection, test and trials have been carried out to the extent and in the manner as agreed with the ship-owner.

5. 3. 4 Document & Project Control.

Considering the large quantities of Plans, documents and correspondence accruing during a shipbuilding project, Ananda Shipyard has procured a computerized system for document and project control.

These include software to keep track of drawings, status of plan approval, comments given to each plan and comments implemented, giving an accurate real time status of plan approval. This is a vital tool for ensuring that all comments given during the plan approval stage are implemented within the construction drawings and actually built into the vessel. 6. Project

Scheduling s\ActivitiesJune 07July 07August 07September 07October

07November 07December 07

232425262728293031323334353637383940414243444546474849505152

1Approval of drawings 2Keel laying 3 4 5 6 7 8 9 10 11 12 13 4 15 16 7.

Summary Successful operation of a shipyard depends upon careful and efficient planning. To maximize production and minimize cost shipyards work on more than ship at a time. Thus proper planning and coordination is vital for any shipbuilder. In Ananda Shipyard, the Project Organization is led by the project manager appointed by the management. They manage the shipbuilding process in the shipyard. They are provided with clearly defined communication/reporting lines, responsibilities, tasks and work steps required to move the project ahead. Bibliography References