

# [Heavy mechanical complex (private) limited analysis](https://assignbuster.com/heavy-mechanical-complex-private-limited-analysis/)

Heavy Mechanical Complex (Private) Limited is a leading engineering goods manufacturing enterprise in Pakistan located at Taxila about 30 Kilometers north of capital Islamabad. It is a professionally managed progressive organization with over 160, 000 sq. meters covered facilities and 1100 employees. HMC have a separate COLONY for their employee which is equipped with all the basic facilities.

## History

Heavy Mechanical Complex was founded in 1969 with the collaboration of CHINA and it was a huge project which was gifted to the people of Pakistan by the CHINA. It is playing a main role in the Development of the country.

## VALUE

HMC have the resources to handle large projects with demanding delivery schedules. Being the largest and most extensive fabrication and machining facility equipped with state of the art technology HMC provide manufacturing services both on our own or customers design. HMC have gained rich experience in designing and manufacturing of large projects through collaboration with internationally reputed engineering organizations. All its processing facilities are in-house including Designing, Fabrication, Machining, Iron and Steel Castings, Forgings, Heat Treatment, Assembly, Sand Blasting, Painting and Galvanizing etc.

HMC is ISO 9001 certified the manufacturing is backed by excellent quality control and testing facilities to meet the product and customer quality requirements.

## PRODUCTS

HMC is offering a products having state of the art technology. Some of the projects offered are as follow:

## Cement Plants

HMC offer its clients technology know-how, gained largely from collaboration with world-renowned manufacturers / designers of Portland Cement Plants from 600 to 4, 000 TPD capacity and white cement plant up to 1, 000 TPD capacities.

## Sugar Plants

HMC’s engineering team is capable to draw up the details for complete plant engineering from plant layout to equipment selection, equipment design, piping schedules, material balance, utility balance, heat balance, loading and strength calculations of supporting structure etc. and capable for designing and engineering of complete sugar plant ranging crushing capacity of cane from 500 TCD to 12, 000 TCD and beet sugar plants up to 3000 TCD based on various processes.

## Chemical & Petro-Chemical Plants

HMC is manufacturing the following equipment for chemical & petrochemical plants:

* Pressure vessels
* Heat exchangers
* Storage tanks (LPG, Crude oil, etc) of various types
* Drums
* Towers / strippers
* Columns etc…

## Power Plants

## Thermal Power Plants

In the energy sector HMC has supplied over 30, 000 tons of fabricated equipment and parts to different power plants. Major strength is HMC’s capabilities for manufacturing utility boilers pressure parts. For this purpose some of the major machines are:

* 3 roller bending machines for making drums
* Booster pipe bending machine for making super heater
* Reheated and economizer coils
* Specialized machine for machining and welding of headers and complete train of machines for manufacture of membrane walls in panel and bent form.

## Overhead Traveling Cranes

Overhead traveling cranes being part of regular production programmer of HMC are designed and manufactured according to individual requirements of the client. Various types of cranes being manufactured are:

* Overhead traveling cranes (electrically operated) with hook, grab or magnet.
* Gantry and semi gantry cranes
* JIB cranes either pillar mounted or wall mounted type
* Under-slung cranes
* Mono-rail systems – straight and curved track.

## Road Construction Machinery

## Road Rollers

HMC manufactures 10-12 tons static road roller having trade mark registered name “ Shehzore” for more than two & half decades as per requirements of international road compaction & standards. HMC has manufactured / supplied more than 1200 (one thousand two hundreds) units of static road rollers in the country. HMC’s static road roller is tough, versatile, dependable, having low operational cost and high standard of performance.

HMC have a strong back up of after sale service and supply of spare parts on regular basis.

## Railway Equipment

## Axles

HMC is the only railway axle manufacturing concern in Pakistan and has so far supplied over 7500 different type of axles for bogies, wagons & locomotives for Pakistan Railways.

## Screw Jacks

Special purpose screw jack for lifting the railway locomotives are custom designed and manufactured as per requirement & most of the Pak Railway’s requirement is catered for by HMC.

## WORK SHOPS

Work Shops which are taking place in the Production process in HMC are as follow:

## Design Shop

Design Shop is established in 1970. About 100 highly qualified and experienced design engineers are engaged in designing. Equipped with latest CAD tools (See Hardware & Software). About 132 node local area network is installed in Design Department.

## Fabrication Shop

All the fabrication processing needs are available in HMC which include; thermal and mechanical cutting, beveling, plate bending, hot and cold forming, SMAG, TIG, MIG, SAW Welding, stress relieving/heat treatment furnaces, abrasive blasting, painting and galvanizing.

## Machining Shop

HMC has the ability to machine castings, forgings, fabricated parts, sub assemblies and complete assemblies in accordance with the design requirements. The facility consists of varieties of machine tools capable of performing various machining operations such as turning, planning, milling, boring, drilling, deep hole drilling, gear hobbing, threading, slotting, spiral bevel cutting etc. to the close tolerate specified in the design

## Steel Foundry Shop

In HMC Steel foundry is equipped with 2×15 toms and 1x 3 tons electric arc furnace (EAF), 1. 5 ton induction furnace, sand preparation system, mechanized molding system, molding machines, heat transfer and heating furnaces.

## Iron Foundry Shop

In HMC Iron foundry Shop is equipped with three hot blast 5 ton cupolas and two main frequency induction furnaces of 1. 5 ton and 0. 75 ton respectively. Iron castings in various shapes and grades including S. G. Iron up to approximately 25 tons a piece and copper or Aluminum castings up to 2000 kg a piece can be produced as per customer’s requirements.

## Hydraulic Press Shop

Hydraulic Press shop is equipped with a 3150 ton hydraulic forging press, 80 ton overhead forging crane, 10 ton forging manipulator, overhead traveling cranes having maximum lifting capacity of 50 ton.

## Die Forge Shop

Die Forge shop specializes in production of automotive die forged components in weight up to 150 kg a piece and steel balls up to 100 mm diameter.

## Quality Control Shop

Inspection and testing is carried out as per the procedures established for ISO 9001, QA System and ASME Code procedures. The inspection & testing activities are well backed up with the following facilities:

Non Destructive Examination

Material Testing Lab

Instrument Calibration Laboratory

## ORGANIZATION CHART

* MANAGING DIRECTOR
* Quality Assurance
* Sales & Marketing Group
* Finance & Accounts Department
* Product Design
* G. M Head Operation
* Project Management Division
* DGM
* S&M-P
* G. M
* (SED-3)
* Foundry & Forge Works
* DMD (SED-2)
* Purchase DGM
* Mechanical Works
* G. M Design
* Human Resource Department
* Production Planning Control

## Role of key Positions

Organization Chart basically tells us about the different positions in the organization and shows that how they interact with each other for the proper working of the organization.

## Managing Director

Managing Director is the CEO of the organization and he deals with all the matters in the organization. He is responsible to manage and control all the activities performed in his organization.

## Deputy Managing Director

In the absence of Managing Director Deputy Managing Director Act as a CEO of the Organization and along with that it is the responsibility of the DMD to give suggestions to the Managing Director in different matters.

## General Manager

General Manager is the third most important position in the Hierarchy of Heavy Mechanical Complex. In the absence of Managing director and Deputy Managing Director, General Manager is the sole Authority and he control all the activities performed in the organization.

## Other Top positions

Along with the three main Top Positions in HMC, DGM Sales & Marketing, DGM Purchase, DGM Finance, DGM Accounts also play there role in the decision making process.

## ORGANIZATION CULTURE

## Introduction to Culture

Culture is a set of basic values, believes, perception and behaviors that people learn from there surroundings.

Every Organization has its own culture and employees have to adopt them selves according to the culture of the organization. Organization Culture basically tells us that how employees interact with each other, behavior of employers with their sub ordinates and method of interaction of top management with the middle and low level management in the Hierarchy of the organization is also depend upon the culture of the organization.

## Organization Culture in Heavy Mechanical Complex

In HMC organizational Culture is quit similar to the culture of any Government organization.

Top Level management is not answerable to any one but the middle level management is answerable in front of the top management and similarly low level management is dependent on middle level and top level management.

On the other hand there is also a Welfare Union which is defending the rights of the workers and there are proper elections held in the organization. Union are playing a Positive role in the working of the organization.

Apart from Welfare Union there is also a regulatory authority in HMC which is responsible to handle a conflict between Employees and vice Versa.

## DEPARTMENTS

There are Different Departments in HMC and each department has its own important in the proper working of the organization.

## Accounts Department

All the Accounts of the HMC are maintained in the Accounts Department and DGMA ALAM KHAN is the head of that department.

All the transactions, Annual Reports, Income Statement, and Profit & Loss AC are maintained in the Accounts Department.

## Finance Department

Finance Department is also a very important department in any organization and in HMC Finance Department is responsible for all the payments which are to be made to the external parties. Finance Department consist of thee sections namely:

1. Bill Section
2. Pay Roll Section
3. Credit Control Section

DGMF SALEEM IQBAL is the head of Finance department.

## Purchase Department

Purchase Department is also a key Department in HMC. Its main role is to fulfill the requirement of the Raw Material.

When ever there is a shortage of Raw Material in the Shops and material is not available in the Store then Purchase Department place an order to the External Parties in the form of TENDER. The party which provides best Raw Material and fulfills all the requirements is then given the Purchase Order. Copy of this Purchase order is then given to Finance Department and when the delivery is received then the payment is made to that party according to the specified Terms and Conditions as expressed in the Purchase Order.

## Sales Department

The working of the sales Department is opposite to that of purchase department.

When ever there is some order placed by some party to HMC, then the Engineers take a look at there capability that they can fulfill the required order in time or not.

If they have the capability then Proposal is sent to the party and terms and conditions are decided.

This Sale Order is then sent to the Finance Department and when the order is placed to the party the payment is received according to terms and conditions defined in Sales Order.

## PPC, Quality Assurance Department

PPC (Production Planning Control) or Quality Assurance Department is also a very important department.

The main Functions of this department is to check the Quality of purchase material and also the quality of the equipment or plant which is going to be selling to external party in accordance with the rules define under ISO9001.

## HUMAN RESOURCE DEPARTMENT

We say that there is a Finance dept, Purchase Dept, Sales Dept, A/C Dept etc. Can these Departments performs there functions at there own? Answer is BIG NO. There is some force which is controlling these departments and this force is Human Resource.

With out Human Resource no Department can perform its Functions.

Human Resource Departments role is to provide skilled and efficient human resource to perform functions in these departments.

The main source to run any organization is the Human Resource and with Human Resource no organization can survive.

## HISTORY OF HUMAN RESOURCE DEPARTMENT

Human Resource Department is considered as a key Department in any Organization because all the departments have to keep interaction with this very department.

But Unfortunately history of Human Resource Department is not very good in our country PAKISTAN, the scope of Human Resource Department is developing in different organizations but it will take at least one or two decades for the awareness of Importance of Human Resource Department.

In HMC there was an ADMIN Department which was handling all the functions of the organization but now there is a Human Resource Department in HMC and all the affairs related to Recruitment and Selection is taken by Human Resource Department. Frankly Speaking we can say that they had change the name of there ADMIN Dept into Human Resource Department.

## Hierarchy of Human Resource Department in HMC

* Head Human Resource Department
* Admin & Services
* Personal
* Litigation & Welfare
* Estate
* Industrial Relation

## Industrial Relation Department

As we have seen in the Hierarchy of Human Resource Department in HMC Industrial Relation is the Sub department of Human Resource.

Industrial Relation Basically deals with the affairs of Labors and Workers.

Recruitment, Training, Selection, Development, Job Rotation and all other functions of Human Resource related to Labor are deal in Industrial Relation Department.

Industrial Relation follows the IRO 2002 (Industrial Relation Ordinance 2002) and affairs of workers are deal under Industrial and Commercial Employment Ordinance 1968.

## Personal Department

Personal department is the second important department in HMC.

Personal department deals with the affairs of Officers and Top Management. It is the responsibility of Personal Department to Prepare ACR of the employees at the end of year.

In short all the Human Resource Activities related to Officers are deal under the UMBRELLA of Personal.

## Litigation and Welfare Department

HMC basically follows the Factory Act 1934, and all the matters related to Law are deal under the Litigation. If some external party Sue the organization then it is the responsibility of Litigation section to solve the issue according to Law.

All the welfare issues are also deal under this department. Transport, Education of Employees Children and Medical Facilities to Employees are Deal under Welfare Section.

## Estate Department

HMC is having its Colony for its employees and there are more than 80% employees who are living in the Colony.

Estate department duty is to deal with all the affairs related to Colony.

Main duties of Estate Department are:

* Allotment of Quarters
* Maintenance
* Street Lights
* Security
* Supply of Electricity, Gas & Water

Apart from these duties it is also the duty of estate department to keep check and balance of Inventory and assets of the factory.

## Admin & General Services Department

All the Issues which are related to Administration of the HMC are deal under the Admin & General Services Section.

## ROLE OF HUMAN RESOURCE DEPARTMENT

Human Resource Department is playing a very important role in the organization. All the organization is linked directly or indirectly with the Human Resource Department.

There are Five Different Sub Departments of Human Resource in HMC which shows us about the important of Human Resource Department.

## FUNCTIONS OF HUMAN RESOURCE

Following are the main Functions of Human Resource Department in Heavy Mechanical Complex and now we will discuss these functions in detail.

## HUMAN RESOURCE PLANNING

## Introduction

Human Resource Planning is the first Function of Human Resource Department.

Basically Human resource planning is a process of determining an organization’s human resource needs. Whenever an organization is in the process of determining its human resource needs, it is engaged in a process we can call human resource planning.

## Human Resource Planning in HMC

Every Organization has to fulfill its needs of Human Resource in order to perform its functions in a smooth way.

HMC is also involved in the process of Human Resource Planning. When ever there is need arises of Human Resource in any workshop then the shop In-charge sends a memo to the Industrial Relation Department which deals with the affairs of workers.

Industrial Relation first of all tries to search for some Hidden Employment so that they can rotate the Worker to the desired work shop. If there is no hidden employment then they send a memo to the Managing Director for the approval of the further process of Recruiting new employees. When the approval is received by the Managing Director then the further process of giving Ads in the news paper and job analysis starts.

Similarly if there is a need to hire some Engineer or Manager the same procedure is followed but the process of managerial level post is entertained in the Personal Department.

## Suggestion about Human Resource Planning

Suggestion for Human Resource Planning in Heavy Mechanical Complex is that process of human Resource planning should not be too long as it happens normally in Government Organizations that candidate has to wait for 6 to 8 months for the Interview call. Process should be short.

## HUMAN RESOURCE JOB ANALYSIS

## Introduction

The procedure for determining the duties and skill requirements of a job and the kind of person who should be hired for it.

Job Analysis is done with the current employees who are performing there duties and the main purpose of job analysis is to determine job’s duties, responsibilities and accountabilities.

This process includes the identification of the task performed, Machines and Equipments used in operational activities etc.

## Use of Job Analysis Information

Job Analysis information is used in:

## Job Description

A list of a job’s duties, responsibilities, reporting relationships, working conditions, and supervisory responsibilities-one product of a job analysis.

Job Description is basically a part of job analysis in which we describe the nature of job, working conditions, responsibilities & duties etc.

## Job Specification

A list of a job’s “ human requirements,” that is, the requisite education, skills, personality, and so on-another product of a job analysis.

In Job Specification we look for the human requirement for the specified job. We look for the Education, Knowledge, Qualification and skills required for the job.

Apart from Job description and Job Specification Job Analysis information is also help full in determining:

Recruitment and Selection

Performance Appraisal

Job Evaluation

Training

## Job Analysis in Heavy Mechanical Complex

In HMC First of all the Human Resource Managers describe the job description and job specification. The company asses the role of position and then determines whether this position is occupied only by a person who is experienced or person without experience can easily and immediately adjust himself in such a position and then company decides what type of qualification person holds who can handle with the problems arise with in that situation.

In simple we can say that the company has some expectations regarding the position and company formulate their job description and job specification on the basis of their expectation that the person who shall occupy this position must possess such kind of skills experience and qualification. But these expectations are established after analyzing the posts.

## Suggestions regarding Job Analysis

Company follows the old techniques related to job analysis process.

Many problems arise due to the old techniques which are adopted by HMC.

So we suggest that they should use new techniques regarding job description and job specification so that they can easily evaluate the current employees on there job.

## RECRUITMENT

## INTRODUCTION

There is a need of skilled and qualified workers in any organization in order to differentiate themselves from their competitors. So, an effective recruitment process is necessary for every organization.

Recruitment refers to the process of creating pool of applicants. Recruiting is the process of discovering potential candidates for actual or anticipated organized vacancies.

Basically two types of recruitment process are followed by different organization;

Internal Recruitment

External Recruitment

## Internal Recruitment

Recruitment that is done within the organization either in form of promotion, job rotation etc.

Different Methods of internal recruitment are as follows:

Referrals

Notice boards

College hiring’s (apprenticeship)

Job fairs etc….

## External Recruitment

External Recruitment refers to the recruitment of new employees from out

Side the organization.

Different methods of external recruitment are as follows:

Newspaper

Magazine

Radio

Internet

Signboards

Television etc …

## Recruitment Process in Heavy Mechanical Complex

Company has designed the Recruitment Policy as follows:

Age of worker should be 18 or more years at the time of recruitment.

He should have N. I. C.

Physical health should be proper as regarded to the nature of work.

## Source of Recruitment in Heavy Mechanical Complex

Main sources of recruitment in HMC are as:

Walk in interviews

Direct hiring

Notice boards

Newspapers

Internet

College hiring (Apprenticeship)

## Suggestions

Many hires are based on favoritism in HMC.

As HMC is government organization so political influence plays a keen role while hiring.

We suggest that hiring’s are based totally on merits to increase the standards of productivity.

## SELECTION

## Introduction

Organizational performance always depends in part on subordinates having the right skills and attributes. So an effective selection process can enhance the working efficiency of any organization.

HR selection is the process of choosing qualified Individuals who are available to fill positions in an Organization.

## Selection process in Heavy Mechanical Complex

HMC has its own selection process. There is a selection committee who scrutinize the applications on the bases of their criteria.

A criterion for education is as follows:

## Education

## Weitage (%)

Metric

20

Intermediate

20

Graduation

50

Interview

10

There is also a provincial quota for every province.

## Province

## Quota (%)

Punjab

50

Sindh(Urban)

7. 6

Sindh(Rural)

11. 4

NWFP

11. 5

Baluchistan

6

Fata

4

Azad Kashmir

2

There is also 7. 5 % quota for merit

## Testing techniques

Different testing technique is used to evaluate the candidate’s abilities.

Written test

Interview

Medical test

## Suggestions Regarding Selection Process

The criteria for selection is effective but there is need to adopt new method for testing employees to meet internationals levels.

We suggest that there should be a G-MAT test, online test for evaluating candidate’s skills and immediate feedback.

## ORIENTATION

## Introduction

A procedure for providing new employees with basic background information about the firm.

In orientation information about organization culture, information on employee benefits, health and safety measures, regulations, working hours, compensations, discipline, dressing, daily routine works and information about other important issues are provided.

Main purpose of orientation is to provide the basic know how about the organization.

## Orientation in Heavy Mechanical Complex

Unfortunately there is no proper method of orientation adopted by HMC they mixed up orientation and training process.

## TRAINING AND DEVELOPMENT

## Training

The process of teaching new employees the basic skills they need to perform their jobs. Training refers to the methods used to give new or present employee the skills they need to perform their job satisfactorially. Good training is vital.

## Why training is needed

Training is needed when there is a problem, lack of efficiency or lack of activities.

## Development

Any attempt to improve current or future management performance by imparting knowledge, changing attitudes, or increasing skills.

Main difference b/w training and development by different authors are as:

Training is for new employees and term development is used for existing employees

The term training is used for labor force and the development refers for managerial employees.

## Training and Development Techniques in Heavy Mechanical Complex

Different Training and development techniques are used by management in HMC. The criteria for training and development for labor force and management are different. On the Job training techniques is also used.

## Industrial relation Department

Workers and labor training are deal by industrial relation department. Time period for labor force training vary from 4 to 6 weeks. They have there own training centers where training is provided to workers.

## Personnel department

Managerial level training is deal by personnel department. Training for managerial levels varies from 6 month to 1 year time duration.

## Development

Development of employees basically depends upon annual confidential report (ACR) which prepared at the end of each year. And promotions are based on there reports.

## Suggestions regarding Training and Development

There are many deficiencies on different technique ground and employees don’t take interest on training . proper check and balance is required to ensure that employee take interest in training.

## PERFORMANCE MANAGEMENT

## Introduction

Performance management system involves numerous activities, for more than simply reviewing what an employee has done. This system must fulfill several purposes. Moreover they are often constrained by difficulties in how they operate.

The HR management has set clear-cut standards of performance for every job. The performance appraisal designed by the HR management involves getting information about how well each employee is performing his/her job in order to reward those who are effective, improve the performance of those who are ineffective, or provide a written justification for why the poor performer should be disciplined.

The process employers use to make sure employees are working toward organizational goals.

## Performance Management Practices in Heavy Mechanical Complex

Standards are there to evaluate the performance of employees these standard are set by the committee who is responsible for giving promotions and other incentives to there employees. Industrial relation department is responsible for evaluating the performance of labor force. Personnel department is responsible managerial performance. In HMC shop manager is responsible to point the efficient employees.

## Suggestions Regarding Performance Management

As HMC is working under government. So there is a lot of nepotism and favoritism . as labor promotion is base don ACR submitted by the shop supervisor, so there is a lot of favoritism involved. We suggest that there should be proper check and balance by management. And deserving employees should get appraisal according to the regulations.

## COMENSATION AND BENEFITS

## Introduction

Compensation means to give any financial support to employees in reward against there services.

Indirect financial and non financial payments employees receive for continuing their employment with the company.

## Laws

Different laws are followed by HMC for compensating there employees. Some of these are as under

Workmen compensation act 1923

Payment of wages act 1936

Minimum wage ordinance 1961

Old age benefit act 1976

## Need of Compensations and Benefits

Compensation and benefits are given to employees to enhance there performance. Different types of incentives given to employees to improve their performance. Benefits are given to raise the performance of employees.

## Benefits given to employees in Heavy Mechanical Complex

HMC is providing many benefits to there employees. List of benefits are as under

Bonuses

Housing facility

Transportation

Schooling

Electricity, Gas and Water

Hajj facility

## HEALTH AND SAFETY

## Health and Safety Practices in Heavy Mechanical Complex

HMC is providing health and safety facilities to there employees. There is a hospital in HMC. HMC used to give proper health treatment to their employees and all the expenses on that medical aid are bear by HMC.

Dispensary is available on plant where first aid is given in case of emergency.

## Laws regarding Health and Safety

Different laws are following by HMC relating Health and Safety. Some of them are as follow:

Industrial Relation Ordinance 2002 (IRO 2002)

Factories Ordinance Act 1934

HMC is providing health and safety according to ISO 9001.

## CONCLUSION

After all the Discussion, at the end we may conclude that HMC is an asset of Pakistan. It is a vast project of mechanical engineering and there is a need of proper attention by the Government beca