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Process Based Organization Model Conceptualization

Interim Dissertation submitted

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR AWARD OF DEGREE OF

Master of Technology

In

Industrial Engineering & Management

Submitted by

DHIRAJ MISHRA

Admission No- 16MT001421

Under the guidance of:

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PREFACE

Internship is an essential requirement of M.Tech Program and that too from a top-notch company like Jindal Steel and Power Limited. The main objective of this internship is to provide an insight into the industrial environmental among the students.

At the end of 1st year M.Tech, Internship has become mandatory to the students because they may get personal experience and learn more by exposure to the industry. They can get practical knowledge of the industries and they can get an opportunity to know working pattern in various departments.

The exposure at industry gave me an opportunity to get practical knowledge including theoretical aspect of each department. This valuable experience would develop my inner capabilities and would also help in my commitments. I am really happy to get such an opportunity to do training and get practical knowledge about all the functional areas of an industry.

This project report mentions transition from structural based organization to process based organization by enhancing efficiency and improving the processes.

Acknowledgement

The success and final outcome of this project required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along the completion of my project. All that I have done is only due to such supervision and assistance and I would not forget to thank them.

I respect and thank **Arghya Sarkar** for providing me an opportunity to do the project work in Jindal Steel and Power Limited, Barbil and giving us all support and guidance which made me complete the project duly. I am extremely thankful to [her/him] for providing such a nice support and guidance, although he had busy schedule managing the corporate affairs.

I owe my deep gratitude to my project guide **GovindSwaroop Pathak** who took keen interest on our project work and guided us all along, till the completion of our project work by providing all the necessary information for developing a good system.

I would not forget to remember **Suresa G** for their encouragement and more over for their timely support and guidance till the completion of my project work.

I am thankful to and fortunate enough to get constant encouragement, support and guidance from all Teaching staffs of Department of Management Studies which helped us in successfully completing our project work. Also, I would like to extend our sincere esteems to all staff in JSPL for their timely support.

Dhiraj Mishra

CERTIFICATE

This is to certify that research work embodied in this thesis entitled **"Process-Based Organization Model Conceptualization"** is carried out by **Mr. Dhiraj Mishra (Admn No.-16MT001421)** at **Jindal Steel and Power Limited, Barbil** for partial fulfilment of M.Tech degree to be awarded by **Indian Institute of Technology (Indian School of Mines) Dhanbad**.This research work has been carried out under my supervision and is to my satisfaction.

Date: 1/11/17

Place: Barbil

For Jindal Steel and Power Limited

Arghya Sarkar

Arghya Sarkar

Dy.Manager-HR & ES

DECLARATION

I hereby declare that this interim dissertation entitled **"Process Based Organization Model Conceptualization"** was carried out by me for the partial fulfilment of the award for degree of Master of Technology under the guidance of Govind**Swaroop Pathak, Professor, IIT (ISM) Dhanbad.**

The interpretations put forth are based on my reading and understanding of the original texts and they are not published anywhere in the form of books, monographs or articles. The other books, articles and websites, which I have made use of are acknowledged at the respective place in the text. For the present thesis, which I am submitting to the University, no degree or diploma or distinction has been conferred on me before, either in this or in any other University.

Place: IIT (ISM) Dhanbad DhirajMishra

M.Tech(IEM)

Admn.No.-16MT001421

ABSTRACT

The increased competition in cost, quality, services and technical changes of today's business world is translated into complexity of the company's organization design. Organizations are forced to quickly adapt to emerging complexity if they want to survive. The change is addressing all areas of business, especially questioning organizational effectiveness and trying to find optimal solutions for doing business.

Inefficiencies of the two most commonly present structures – functional and divisional, in addition to emerging business trends, place the emphasis on a process-based organization as one of the possible solutions. The process-based organization is led by the process paradigm, which is focused on the horizontal view of business activities and alignment of organizational systems towards business processes.

The purpose of the paper is to demystify process-based organization design model. By clearlydistinguish between different levels of process orientation, and by addressing characteristics of the chosen model the paper will lead to better understanding of this way of organizing. Eventually, an operationalized model of process-based organization is developed. Furthermore, the paper elaborates on differences between process-based and functional based models and their philosophies.

The paper focuses on the two key ideas that underpin a process based organizational structure. First, organizational units are organized around core processes. Second, other processes are added to these units minimizing the necessity of cross-unit coordination. There would be proposed necessary adjustments of organizational elements which should be aligned with the process-based structural solution. In such way, some of the blind spots of process-based organization design model would be revealed, providing practical implications for its implementation and ultimately, offering solution for rising business complexity.

Key Words

Process-based organization; reengineering; organizational structure; changing Management role.

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CHAPTER-1

INTRODUCTION

Business processes are core to the functioning of an organization. Yet, they have been neglected for a long time mainly due to companies are structured in a functional or product oriented way. Several companies are moving away from this type of organizations and intend to establish process-based organizations in order to cope with the increasing complexity and dynamics of the economic environment. This shift has clear implications for the organizational structure.

Currently, most organizational structures are based either on function or product, with little or no process orientation. Functionally organized companies have difficulty meeting customer needs seamlessly across different functions because no one “owns” the issue of how long it takes or how much it costs to fulfil customer requests. The same works for divisionally organized companies, which are mostly oriented toward their products building market demand for those products they are able to produce, neglecting customer needs and their business relationships.

Inefficiencies of the two most commonly present structures, in addition to emerging business trends, place the emphasis on a process-based organization as one of the possible solutions. The process-based organization is led by the process paradigm, which is focused on the horizontal view of business activities and alignment of organizational systems toward business processes.

Process-based management (PBM) is a management approach that governs the mind-set and actions in an organization. It is a philosophy of how an organization manages its Operations, aligned with and supported by its vision, mission, and values. PBM becomes the basis for decision making and taking action.

This paper distinguishes two key ideas underpinning a viable process-based organization. First, a company is divided into basic organizational units which are organized around core processes. Second, other type of processes are added to these units so that they can operate in a effective and efficient way.

Another issue to be dealt with is the question how process-based business units fit together to create a process-based corporation? The main reason is all management levels in performing process-based companies have to play completely different roles than in the traditional structure-based company. One can no longer think in terms of the traditional strategy-structure-systems doctrine which dominated management literature for almost half a century but has to emphasize the roles and tasks of different management groups. This has, in its turn, influence on the way the planning and control process is structured and implemented.

Process-based management has a wider scope than just managing individual processes. A process-based organization explicitly recognizes that it manages and operates all Processes to balance and optimize the delivery of value to the customer. Such an organization is in effect using PBM as a strategy to differentiate itself and out-perform its competitors. However, as the strategy is updated and evolves in reaction to changes in the business environment, the process focus remains embedded in the mind-set and philosophy of this organization. The organization's strategy is continually influenced and directed by this philosophy.

The paper is structured in the following way. In the next section, we clarify what a process-based organization is.The next section offers a framework contrasting structure-based and process-based companies. First, we analyse why structure-based organizations have problems to stay competitive in a complex and dynamic environment and why process-based organizations are likely to do better. Next, we enter the issue how to structure a business unit around processes and how a process-based organization has to be set up. In the fourth section, we deal with the difficult leap from process-based business units to a process-based corporation and its implications for the roles of top and middle managers. A concluding section summarizes the main managerial implications of setting up successfully a process-based organization.

CHAPTER-2

Review of Literature

(2.1) Understanding Process Based Organization:

In order to distinguish Process-Based Organizations from other type of organizations I start withthe definition of business processes. Abusiness process is defined as" a collection of structured activities designed to produce a specific output that is of value to the customer." In order to achieve the best possible results it is important to choose the structure that match with the objective. Necessary actions arise from strategy which is always the starting point in trying to define an operational model of the company.

Chandler (1962) was among the first who studied a relationship between strategy and structure. He said that structure follows strategy. Nowadays, an intermediate step is recognized as needed: What follows directly from strategy is a clear definition of the core business processes required to execute that strategy, and it is this definition that enables us to build the kind of organization necessary to support the strategy. In that way, a strategy should drive business process design and business process design should drive organization design. Ultimately, the consequential derivation of the design from the strategy of a company needs to be adapted to conform to both the organizational structure and the business processes in order to foster the new orientation.

Processes are at the very heart of every organization because they are the means through which companies create value for their customers. Major processes such as product development or manufacturing almost always draw on multiple functional skills. Other processes such as order fulfilment and post-sales services cross the external boundaries of the company. These processes are called value-adding processes because they directly create value for the external customer. But there are also enabling processeswhose customers are within the organization. Examples are the process of developing and deploying IS, which supports a large part of a company's operating processes, and the process of personnel recruitment and development. They both do not create value for the customer but value-adding processes can achieve competitive edge only if they are supported by agile enabling

processes. Most illustrated examples of business processes are order fulfilment, customer acquisition, manufacturing, product development, accounts payable, post-sales service, etcetera. Setting up a process-based organization always starts with the identification of the key processes of the company. Usually firms - even multibillion companies - can draw a process map with only 5 to 15 key processes. Each process entails a number of activities or tasks: order fulfilment for instance is a process comprising tasks as receiving an order, entering it to the computer, checking the customer's credit, allocating inventory from stock, picking and packing goods, loading and sending them, etcetera.

The primary focus of process-based organization is on the horizontal dimension, which emphasizes the relationships between the functions. Such organizational form is more flexible, adaptive, and responsive than traditional ones. Furthermore, it handles changes better. By organizing around core business processes rather than functions, company establishes a more natural fit between work and structure than the traditional vertical structure can achieve. It is a suitable way to overcome coordination problems and, ultimately, it delivers the value to a customer, representing a source of the competitive advantage for the company through shorter cycle times, higher product quality, etc.

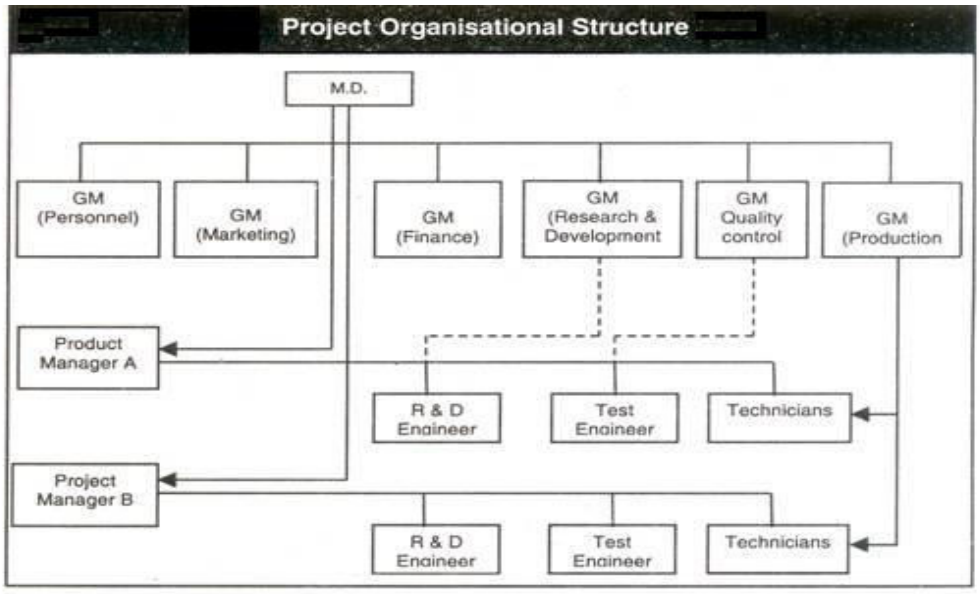
A process perspective necessarily entails cross-functional and cross-organizational change. Yet, in most companies no one is in charge of processes because the organization is divided into functional or product departments in which work is not organized around processes but around tasks. On the contrary, a process perspective is customer oriented and implies a horizontal view of the business that cuts across the organizational departments. Process owners have full responsibility for the effective and efficient running of a process. He or she guides the process team that can operate largely on its own. Consequently, management roles have to change drastically from budget planning and control to guidance and support for operational units. One of the major factors inhibiting these change and reengineering efforts is the existing organization structure.

(2.2) FROM CLASSICAL ORGANIZATIONAL STRUCTURES TO PROCESS-BASED STRUCTURES :

I analyse in this way of what went wrong with structure-based organizations and why Process-based companies are more likely to be competitive in a more complex and dynamic

environment. There should be made a clear distinction between process-based organizations and some existing organizational forms such as function based, ProjectOrganization, ProductOrganization, and Matrix Organization.

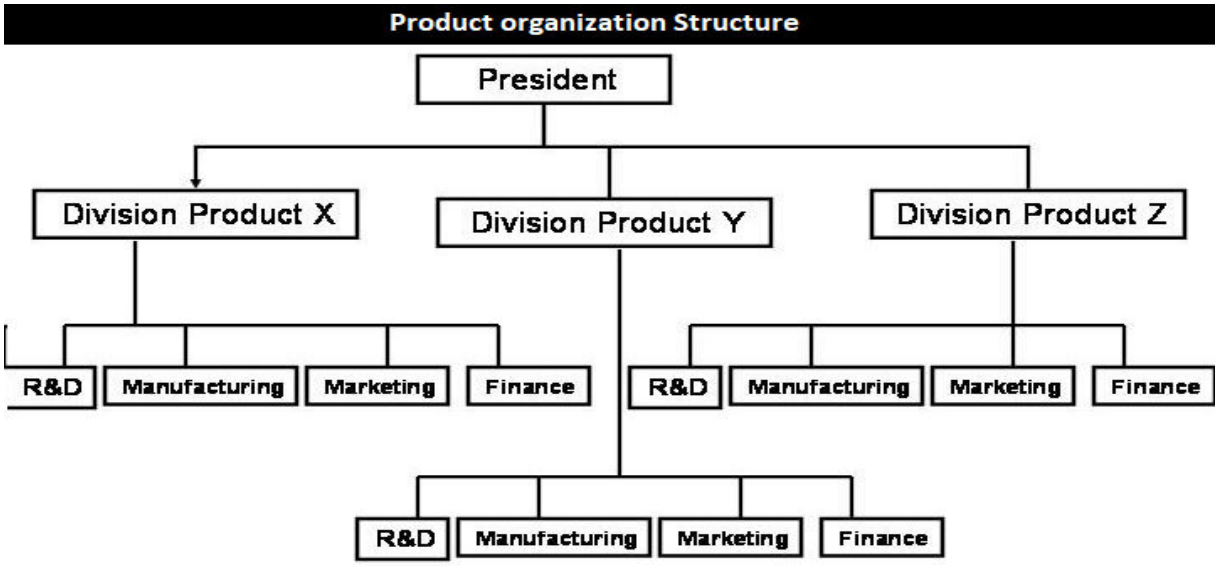
A project organization is temporary organizational form, present during the particular project lifecycle. Because projects are similar to processes in some characteristics, many authors and practitioners are confusing these two organizational forms. However, the basic difference is that a process is a permanent, repetitive activity, while each project is unique and



unrepeatable.

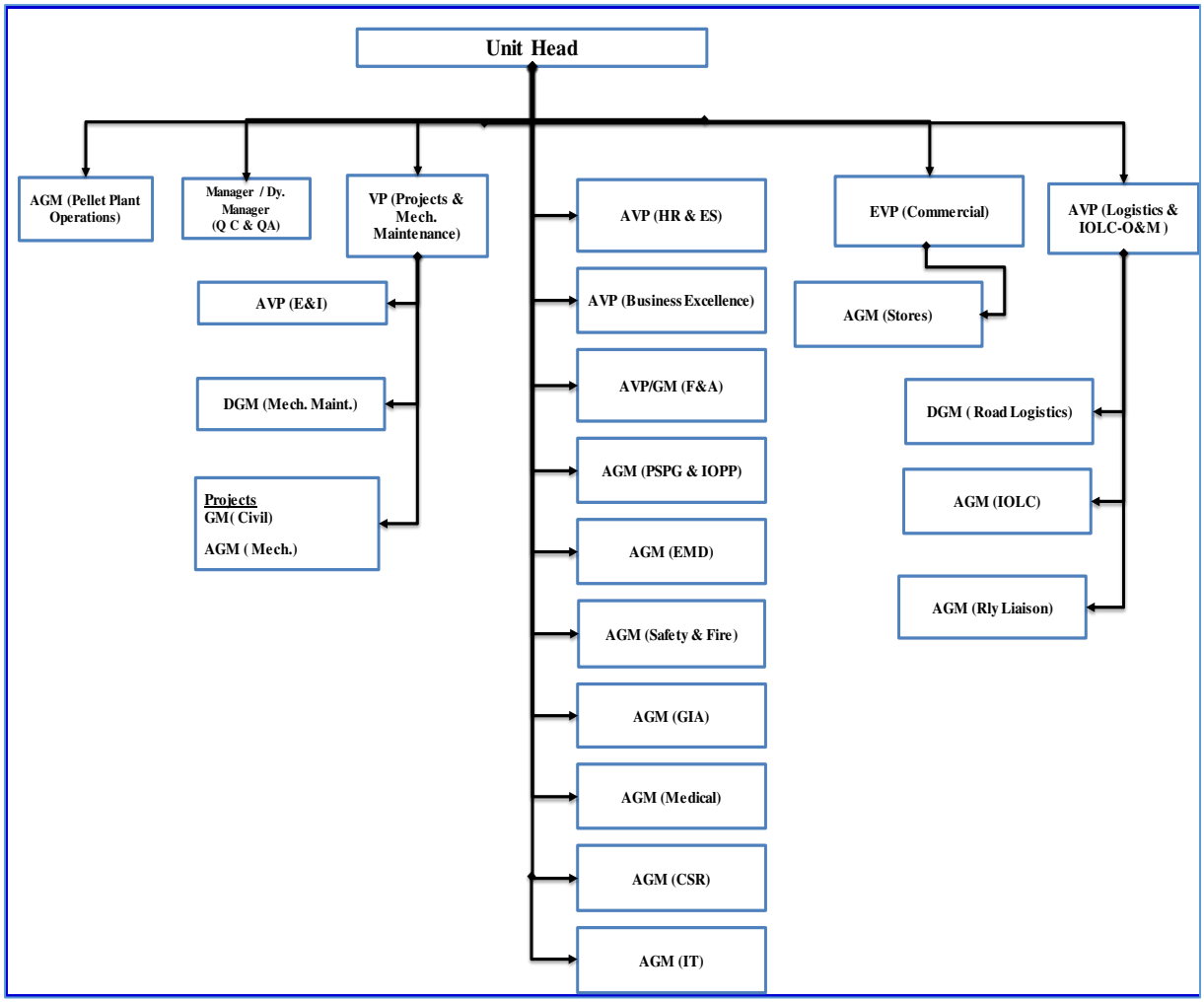
(Figure No.-1: Project Organization Structure)

A product organization or product organizational structure is organized around divisions of products. Each product division is a self-contained business unit, mostly oriented only on its own business, very often without cross-divisional understanding and lateral activities. As nowadays products are becoming integrated, divisional structures cannot respond adequately on customer requirement without necessary lateral integration. Customers more often want a whole service and/or package of different products which were historically done by separate divisions.



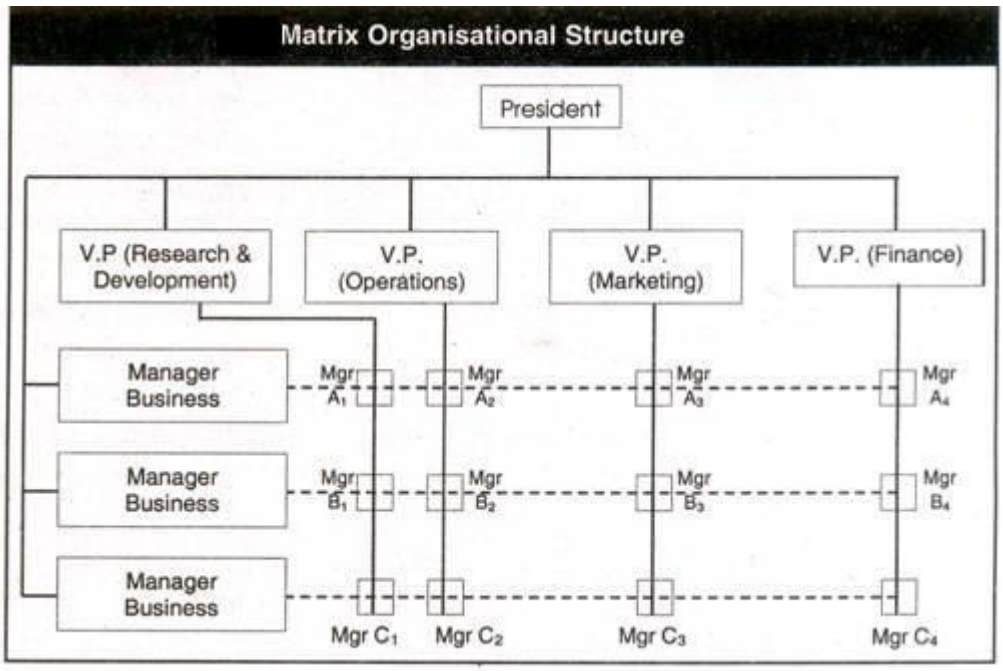
(Figure No.-2: Product Organization Structure)

A functional organization is based on a different philosophy – it is organized around businessfunctions, with strong vertical orientation. Shortcoming of the functional organization is that it inhibits process improvement because no organizational unit has control over a whole process, although many processes involve a large number of functions. However, a manufacturing function could be, and very often is, organized in process terms, according to natural work flow. But, that is only one department or part of the organization which is process-oriented, while other parts are still functionally 'constrained'. However, such organizations are called process-oriented functional organizations.



(Figure No.-3: Functional organization Structure)

Finally, a matrix organization is emphasizing two dimensions of organizing at the same time. It is based on dual focus and dual responsibility (for instance, process and functional

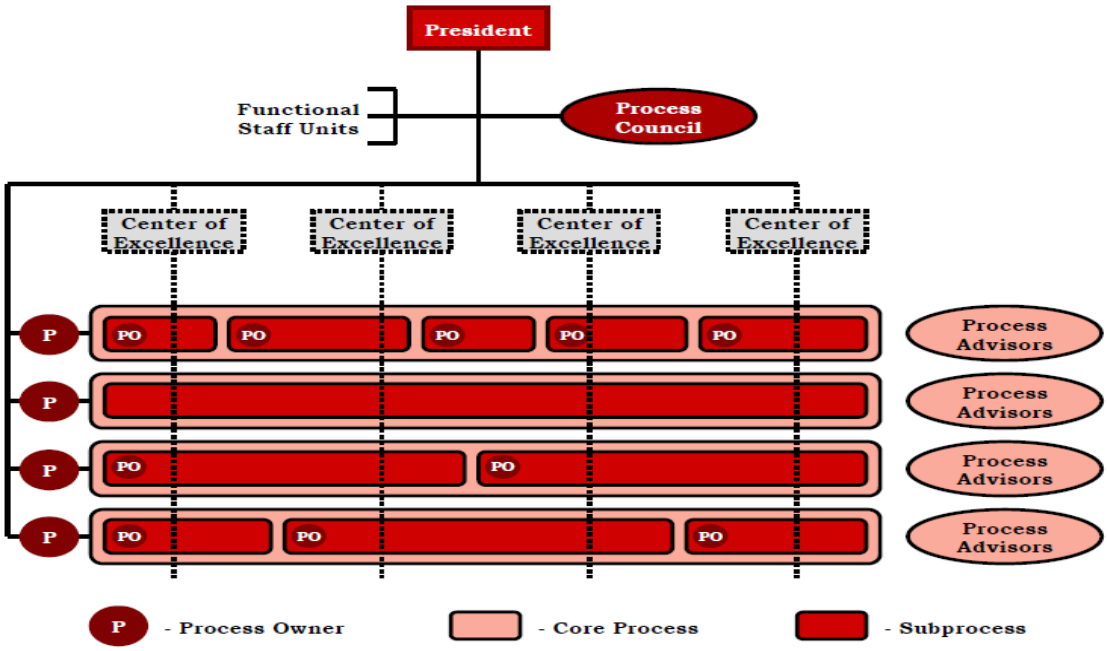


dimension). Although it offers structural alternative capable for handling more complex business practice by creating generalists, in such design model there are greater opportunities for conflict and higher levels of collaboration demanded, unclear reporting relationships, and excessive time spent in coordination activities and meetings.

(Figure No.4: Matrix Organization Structure)

To avoid possible misunderstanding and misconceptions the process-based organization should be defined more thoroughly. In such an organization, business processes are the central point. From a process oriented perspective, outputs flow between processes, not between organizational units, since output measurement also relates to the process. Such a different approach does not mean or require downsizing. Although the process-based organizations reduce bureaucracy and eliminate non-value added work, if properly conceived and implemented, they develop new roles for current and future employees as well as new processes that provide value to the customer and help support long-term success.

(2.3) The need for Process Based Organizations:



The fast changing demands of the business environment create an urgent need for organizations

to break away from the traditional organizational model. Among the most important external forces were the globalization in many industries, the shortening of product life cycles, the

(Figure No.-5: Process Based Organizational Structure)

convergence of technologies and the associated blurring industry boundaries, the massivederegulation in industries and the necessity to build up and renew technological capabilities to succeed in knowledge-intensive industries. Since the economic growth slowed down in the seventies and eighties and competition intensified, customers became more demanding. To become customer oriented was one of the major business challenges. Companies tried out different strategies within the existing organizational paradigm to cope with the new challenges of the external environment but they were only modestly successful: matrix organizations, decentralization, increased customer involvement and other corporate tune ups did not give satisfactory bottom-line improvements. The basic reason for the relatively poor results of these tune-ups is that the organizations structures are basically not changed; most organization structures are based on function or product or a combination of both. Instead of starting from what could add value for the customer and work backward from

there, traditionally structured companies still attribute customers only a secondary role in shaping the way how the company organizes its activities.

Functionally organized companies have considerable problems taking a customer's perspective, because processes that produce value for the customer - e.g. order fulfilment - cut across several departments. However, the latter only report to higher-level managers, so that a customer perspective can be realized only at that level. Frontline managers will be reluctant to take the same perspective since they are not accountable for the outcome of other departments taking part in the same process.

Companies organized along product lines also have problems taking a customer's perspective as well. A product structure leads to poor coordination across product lines which is a major drawback when divisions serve the same customers. Information systems in different units are

likely to be incompatible with each other, resulting in a fragmented approach of customers, which, in turn, leaves lots of possibilities untouched to create value for them. Because most product divisions are functionally structured the same shortcomings of functionally organized companies are applicable on the business level of product-based companies.

	Functional Based Organization	Process Based Organization
Hierarchy	They are working in the functional silos doing the same work of their unit. They are not much concerned by the other work happening in the other departments of the company.	They shows a shift from the vertical structure to the cross functional structure where teams consists of members of different functions to create a team suitable for the particular process
Employee Empowerment	Employees working in functional teams are more expertise in their domains only. This makes them rigid and less innovative and adaptable to new innovations.	By working in cross functional teams employee is able to understand the functions and working of other functions as well which leads to the overall growth of company as well as employee.
Innovation	Since employees are engaged in the activities of their allotted functions only. Innovation is not the focus and they keep doing things with older pattern only.	Since the key focus is to create a value out of the process. This eventually leads to more innovation for the company. Creativity also gets a booster and overall development of the company happens

Organisation environment	Since function based structure has vertical structure. It leads to less transparency giving rise to internal politics.	Since it leads to more flat structure , the office politics becomes less dominant and it eventually leads to more team building practices.
Decision Making	It follows a single department and hierarchy which makes decision making comparatively faster.	It involves cross functional teams which makes decision making complex and leads to delays.

Process-centered companies have the ability to overcome this problems, since processes bring by definition the customer to the fore. Davenport (1993) argues that adopting a process view of the business implies that an organization does what is necessary to produce value for the customer. Traditional organization structures give a static view of responsibilities and reporting relation. On the contrary, a process-based view is a dynamic view of how the organization can deliver value.

The most valuable strength of the process-based organization is that it can significantly increase the company's flexibility and respond to changes in customer needs because of the enhanced coordination. The structure directs everyone's attention toward the customer, which leads to greater customer satisfaction as well as improvements in productivity, speed, and efficiency. In addition, employees take a broader view of organizational goals rather than being focused on the goals of a single department because there are no boundaries between functional departments.

(2.4)Level Prospective of Process based Organization:

A scope and maturity of business process architecture and a nature of changes within processes varies within organizations. Process maturity recently appeared as a mainstream topic in the business process management literature. The concept is offered as a path to business improvement and success. Its basic notion is that there are different levels of process

orientation, and that companies should strive to reach higher process maturity levels. Although the process maturity will not be directly addressed in the paper, a level perspective will be studied more thoroughly.

It should be emphasized that, regarding the level perspective, when talking about business processes and its position in a company, a process hierarchy exists (e.g., process – sub process – activity – task – step). Furthermore, there are different levels of potential process applicability, which are the following: across more than one company; at the enterprise level, such as over an entire corporation; across multiple business units within a corporation; within an individual business unit; over a core process group within a business unit; at the operating-unit level (say, a factory or office) within a business unit (Ostroff, 1999). Addressing specifically the process applicability issue, three common perspectives can be distinguished:

- Organizational level;
- Unit level;
- Individual level

When speaking about business processes at the organizational level, they are embraced by process architecture. The process architecture determines how the organization can utilize the technology – what functions will be centralized or decentralized, and what are the connections between organizational units and the organization and its customers and suppliers (Oden, 1999). It gives an overview of the processes within the company, the most important processes of business partners, and the exchange of outputs between the processes (Osterle, 1995). The purpose of the process architecture is to define the basic physical building blocks of the company's processes in terms of what they do and what their common interfaces are.

At the unit level, process-oriented high-performance work systems that embody elements of total quality will tend to be the norm. These new designs are characterized by simplified business processes and work flows, advanced technological tools (expert systems, knowledge-based tools, smart documents), and innovative human system design (autonomous work teams, enriched job designs, flat hierarchies). In many organizations, individual processes are often seen as separate units on an organization chart. However, managers need to view the organization as a whole and concentrate on the important organizational links among them, because changing any of them might have positive or negative impacts on the system as a whole.

At the individual level, process orientation and business process practice have influence on job
characteristics and people competencies. They shape job designs, accountabilities, and skill requirements – all of which significantly impact culture and competencies. Jobs become more complex, broader and more challenging in process-based organizations, and employees have to be empowered as their work is more self-directing. Individuals have broadened skills, including analytical and interpersonal skills, a commonality of language across the organization, an appreciation of each other's needs, and a better understanding of how things fit together. A hierarchy in the process-based organization will be flattened throughout the organization by redesigning and restructuring roles and eliminating non-value-added work, by integrating work flows, and by vesting decision making at lower levels.

There are many alternatives how a company can be structured by business processes, because most processes consist of sub processes. Some companies have identified as few as a half dozen major processes and other companies over a hundred. These differences are not necessarily a reflection of the relative complexity of the businesses but rather a function of the approach taken to identify the process. It represents only one source of vagueness. Other ones are related with the terminology and the understanding what a process-based organization really is.
However, multiple dimensions of a structure can help bridge the gaps created by a single structural dimension. But only when companies implement process-based organizational solutions processes will be managed in congruence with other aspects of the organization. Then, instead of cutting across the organization, process responsibilities will be a key focus of the organization. Processes cannot become the only basis for organizational structure because functional skills as well as product management remain important. Even more, not all activities can be aligned along processes, so that cross-process integration would be necessary in a purely process-based organization.

Most companies that have undertaken substantial process innovation initiatives have simply imposedprocess management as an additional dimension of structure – on top of the existing dimensions – assigning process ownership to managers who may also have functional and/or product responsibilities. In almost none of these companies process responsibility has been accorded organizational legitimacy. That leads to a conclusion that the process orientation is

necessary, but not always requiring a breakthrough change leading to process-based organization design.

A contingency approach towards process-based organization model is needed in different organizations. Most horizontal organizations will probably be hybrids, drawing the best from both the vertical and the horizontal, and combining performance capabilities of each.Note, however, that even in those organizations that become almost purely horizontal, some functional areas of competency will often remain necessary, and some organization-wide "vertical" management processes – such as strategic planning, finance, and human resources – must be retained to integrate the efforts of the horizontal operating processes and process groups.

CHAPTER-3

Research Methodology

Process Based Organization methodology is simply based on the definition of the Process Based Organization. The primary focus of process-based organization is on the horizontal dimension, which emphasizes the relationships between the functions. Such organizational form is more flexible, adaptive and responsive than traditional ones. Furthermore, it handles changes better. By organizing around core business processes rather than functions, company establishes a more natural fit between work and structure than the traditional vertical structure can achieve.

It is suitable way to overcome coordination problems and, ultimately, it delivers the value to a customer, representing a source of the competitive advantage for the company through shorter cycle times, higher product quality etc.

To implement Process-Based Organization, the methodology we used is consist of various steps and stages. First of all the Jindal Steel and Power Limited, Barbil is split into area wise so that the processes can be mapped as per as the need of customer should be fulfilled and satisfaction of customer. Jindal Steel and Power Limited, Barbil produces Pellets from Iron ore fines. So from the arrival of raw materials to productions and to dispatching of final products to the customers, the plant is split according the activities and the kind of job that area has, and all the functions like Mechanical maintenance, operations, electrical and instrumentation has and there must be coordination between them. The most important

criteria of areas are that within the particular area the on ground travel time should me less that or 15 minutes.

Now, after splitting the area of palletization plant, collection and mapping of process as per as the pre-defined area is done. This whole collection and mapping is done by respective department and function. The processes are collected as per their shift type and with frequency, duration and doer details (who is doing the job - designation). There are two type of shift and that is cyclic and general. Frequency of the Process will be the number of times the job being done per shift. Duration of the process is going to be activities wise. Every Process will consist some activities and summation of all activities will be the duration of that particular process.

Now, according to process based organization the major focus should be on those processes which directly contributing to the customer need and customer satisfaction. So, we selected those processes which are directly contributing to the customer need and satisfaction.

Now, there must be manpower planning as per as the defined area which will be HPPT (High Performance Process Team) Area. The manpower planning should be like that they must take the responsibility and accountability of that particular process. Manpower planning is basically for the team which will work for that particular area that team will be known as High Performance Process Team (HPPT). The responsibilities of the HPPT included creating the schedule; acquiring the orders and the needed parts and people; training workers; moving parts; setting up, maintaining, and repairing equipment; transforming the raw materials into final products; inspecting and reworking the product; delivering the finished product to customers; obtaining feedback from customers and making modification in the product to meet their needs; and evaluating and improving the process. The team must be picked as they can do the job of that particular area. So, the skill of each and every manpower is mapped according to the process of that particular area.

Now, the process improvement of each and every process which are responsible for the customer need and satisfaction are recorded via video filming. The analysis of is done and the time study is also according the time recorded in filmed video.

As per process based organization there must be multi-skilling of the each and every manpower so that the lead time of any process will decrease and there will not be any

hindrance due to lack of skill of any manpower. To increase the skill we must give training to every manpower. The concept of training is divided in three stages:

1. Uni Athlete
2. Bi Athlete
3. Tri Athlete

Uni athlete are those manpower who are skilled in their own department or function.Bi athlete are those manpower who are skilled in their own function and one different function or department.Tri athlete are those manpower who are skilled in their own function or department and two different functions or departments.

Process

Capturing the Processes around the organization

In JSPL Barbil, Pelletization plant there are different type of jobs and for that there are different functions and department dedicated towards their own type of job. Every job has their own processes and every process consist of various activities. There are four department or function n JSPL Barrbil, Pelletization plant namey Mechanical maintenance. Operations, Electrical and Instrumentation..

The process roles of different Functions or Department can be given as:

Mechanical Maintenance -

- Ensures that equipment is properly designed, selected, and installed based on a life-cycle philosophy of an asset
- Ensures that equipment is performing effectively and efficiently
- Establishes and monitors programs for critical equipment analysis and condition monitoring techniques
- Reviews deficiencies noted during corrective maintenance
- Maintains and advises on the use and disposition of stock items, surplus items, and rental equipment
- Promotes equipment standardization
- Consults with maintenance crafts workers on technical problems
- Monitors new tools and technology

- Monitors shop qualifications and quality standards for outside contractors
- Develops standards for major maintenance overhauls and outages
- Makes cost-effective benefit review of the maintenance programs
- Provides technical guidance for the preventive and predictive maintenance programs
- Perform Benchmarking Studies by monitoring competitor's activities in maintenance management
- Serves as the focal point for monitoring performance indicators for maintenance management
- Optimizes maintenance strategies
- Responsible for analyzing equipment, operating data
-

Operations –

- Provide leadership for the successful day-to-day operation
- Work closely with plant and quality assurance personnel to review product quality consistency while monitoring yield rates and wastage to determine trends and areas of improvement.
- Review established production schedules for all manufacturing departments to ensure established inventory levels are met while operating at the highest efficiency possible
- Overall responsibility for ensuring that staffing and competency levels are achieved/exceeded in all aspects of the manufacturing process
- Monitor operation expenses and research ways to reduce costs while maintaining product quality
- Monitor operation expenses and research ways to reduce costs while maintaining product quality
- Develop and execute the plant manufacturing budgets, including relevant departments accountable to the achievement of budgets
- Analyse workforce requirements
- Conduct performance appraisals and provide coaching and guidance to all operations managers
- Encourage and promote operations in a continuous improvement environment

- Remove production constraints; allocate human and equipment resources and direct production employees to attain all established goals
- Remove waste and constraints from the production process to improve efficiencies and enhance productivity
- Work in collaboration with Marketing and Quality Assurance Divisions to develop and bring to market new products
- Work with the Purchasing Manager to develop and improve supplier relationships for all Plant inputs
- Work in collaboration with the People & Performance Manager to manage relationships with site Unions and negotiate enterprise agreements as needed
- Maintain primary processing and production equipment and ancillary service

Electrical Department –

- Evaluates electrical systems, products, components, and applications by designing and conducting research programs; applying knowledge of electricity and materials.
- Confirms system's and components' capabilities by designing testing methods; testing properties.
- Develops electrical products by studying customer requirements; researching and testing manufacturing and assembly methods and materials.
- Develops manufacturing processes by designing and modifying equipment for building and assembling electrical components; soliciting observations from operators.
- Assures product quality by designing electrical testing methods; testing finished products and system capabilities.
- Prepares product reports by collecting, analyzing, and summarizing information and trends.
- Provides engineering information by answering questions and requests.
- Maintains product and company reputation by complying with federal and state regulations.

- Keeps equipment operational by following manufacturer's instructions and established procedures; requesting repair service.
- Maintains product data base by writing computer programs; entering data.
- Completes projects by training and guiding technicians.
- Maintains professional and technical knowledge by attending educational workshops; reviewing professional publications; establishing personal networks; participating in professional societies.
- Contributes to team effort by accomplishing related results as needed.

Instrumentation Department –

- Involve in the Plant Instrumentation systems for industrial applications and plans these systems using recognized industry standards and specifications
- Responsible in Electronics Data Acquisition Systems, Calibration, Measurement & Interpretation, Operations, Pre-Commissioning, Commissioning & Coordinate with vendors for getting as-built drawings, Maintenance & Installation of Field Instruments
- Witness for: Control loops of Flow, Temperature, Level, Pressure, Vibration, Function Groups, Alarm & Interlock systems
- Review and check all assigned project Instrumentation installation drawings for compliance with all company and project instructions (P&I diagrams, Instrumentation equipment location drawings, plan drawings, details, schematics, wiring diagrams, etc.) of technical vendor submittals for installation requirements
- Develop technical bid tabulation to support the selection of major Instrumentation equipment along with Instrumentation & HVAC engineering consultant
- Site supervision and execution of the Instrumentation equipment and installations.
- Should support Utility team to meet the Hungarian statutory requirements of Pollution and Boiler

Now, the roles and responsibilities each and every functions and department which are involved in the production of the product are known to everyone.

Every functions and department submitted their all processes in Do-Mapping activity or Horizontal sheet.

Horizontal Sheet is a format of filling in which there is various columns and they are:

- Major Process - Basically for the area in which the operation is going on.
- Process – This is the process which is going on.(Collection of all activities)
- Activities – the small elements of the given process.
- Shift – This is to identify the shift in which that particular process is done. There are two type of shift and they are:

General Shift - one in a day and is of 8 hours.

Cyclic Shift – Three times a day of 8 Hours each.

- Unit - This is the Dimension of the unit value.
- Unit Value – This is the no. of units involved in the process.
- Frequency – This is the number of times that any particular process or activity is done in a shift.
- Team Size – This is the number of manpower involved in the process or activity.

Template of Do-Mapping – Horizontal Sheet

There are two type of processes that can be done in JSPL, Barbil one is that process which is done by the manpower by visiting the site and touching the machine or equipment and these activities will be mapped in the horizontal sheet. Another type of process is planning, analysis and checking and these processes may not done by going to the site or touching the machine or equipment. All these processes will be mapped in Plan, Check and analyse – Vertical Sheet.

Do-Activity Mapping - Horizontal Analysis					
Prepared By		HOD		Area	
Function		Department		Template Name	HA

Date Submitted		Studied By	IE

S.No	Major Process	Process	Activity	Shift (G-General/C-Cyclical)	Unit	Unit Value	Frequency (No. of units per shift)	Duration (Man Minutes Per Unit)	Team Size	NMM Pre Study/Shift	Doer Details

(Table No.-1: Horizontal Sheet)

Plan, check and analyse - Vertical Sheet

Vertical Sheet has different columns and this is similar to the horizontal sheet except the unit and unit value. Vertical Sheet is filled by individual and the processes will be of only that individual.

Plan, Check and Adjust - Vertical Analysis

Prepared By		HOD	Area	
Function		Department	Template Name	HA
Date Submitted		Studied By		

S.No	Major Process	Process	Activity	Shift (G- General/C-Cyclical)	Doer Name	Frequency (No. of units per shift)	Duration (Man Minutes Per Unit)	NMM Pre Study/Shift

(Table No.-2: Vertical Sheet)

Template of Plan, check and analyse - vertical sheet

So, by these two process sheet, we can map all the process which are responsible for the customer need and satisfaction.

From the JSPL Barbill, Pelletization plant we have collected total of 1559 number of processes.

Department	PP1	PP2	Common	Total
Operation	45	63	0	108
Mechanical Maintenance	201	255	207	663
Electrical	176	227	0	403
Instrumentation	182	203	0	385
Total	604	748	207	1559

(Table 3 – Number of processes function wise)

Where – PP1 – pelletization plant, PP 2 – Pelletization Plant 2, Common – Process involved in both the plants.

Now the processes are mapped and list has been made then the processes with most critical response to the customer need and satisfaction to least critical response to the customer is mapped.

The criticality of all the processes will be evaluated by ABC analysis and the basis of ABC analysis will be as follows

A-Type Equipment –Those equipment are called A-type which will stop the whole production of pellets in JSPL Pelletization process if breakdown of any of these equipment will happens.

B-Type Equipment – Those equipment are called B-type which are two or more in numbers and due to this if breakdown happens in any one off the equipment then only the production will slow down and there will

C-type Equipment – Those equipment are called C-type which are not directly linked with the

production of pellets and if any breakdown happens then production will not hamper. But the spare parts of these equipments must be present so that their breakdown will resolved quickly and thus they will not affect the production if future.

Division of PP 1 Equipment

A Class		B Class		C Class	
Sl No.	Name Of Equipment	Sl No.	Name Of Equipment	Sl No.	Name Of Equipment
1	P1 CONVEYOR	1	HL 3 CONVEYOR	1	EER 2
2	INDURATING MACHINE	2	HL 4 CONVEYOR	2	AGITATOR SLURRY PUMP (2)
3	PROCESS FANS(5)	3	MACHINE DISCHARGE FEEDER	3	PNEUMATIC GATES
4	220 MRSS	4	COOLING WATER PUMPS (6)	4	P4
5	GP – 2,3 & 4 CONVEYOR	5	GP 1A-1F CONVEYOR	5	P5
6	ROLLER SCREEN	6	COMPRESSORS	6	HL1
7	GFR 1A & 1B CONVEYOR	7	MIXTURE 1 & 2	7	HLS SLURRY PUMP (2)
8	GOR CONVEYOR	8	ROTOR FEEDER 1 & 2	8	WATER SOFTNER
9	GFR2 & 3 CONVEYOR	9	RF1 & RF2 CONVEYOR	9	OVER HEAD TANK
10	MO SERIES CONVEYOR	10	LIW SYSTEM BENTONITE	10	ESP
11	ELE. EQUIP. ROOM(EER) 1	11	FURNACE OIL PUMP (4)	11	BALLING DISC (6)
12	EER 3	12	COOLING TOWER (6)	12	SLURRY PUMP

13	EER 4	13	HEAT EXCHANGER (4)	13	AGITATOR
14	DCS 1,2,3	14	THICKNER	14	AIR SLIDE BUCKET ELAVATOR
		15	PROCESS PUMP HOUSE	15	DRYER SLURRY PUMP (4)
		16	EER 5	16	SCRUBBER (2)
		17	HL 2 CONVEYOR	17	WEIGHFEEDERS OF 1-4
		18	VIBRO FEEDER	18	Raw water Pump house
		19	HLS SCREEN	19	AIR SLIDE FAN BAG HOUSE 1 & 2
		20	BENTONITE	20	BALL MILL LUBE OIL SYSTEM
		21	SILO	21	DRYER 1 & 2
		22	AIR SLIDE BALL MILL 1 & 2	22	WEIGHFEEDERS CF1-2
				23	WEIGHFEEDERS LF 1-2
				24	P 2 & 3
				25	AIR SLIDE BAG HOUSE 1 & 2
				26	BUCKET ELEVATOR 1 & 2
				27	BALL MILL 1 & 2
				28	AIR SLIDE FAN BUCKET ELEVTOR
				29	AIR SLIDE FAN BALL MILL 1 & 2

(Table No.-4: Division of PP-1 Equipment)

Division of PP 2 Equipment

A Class		B Class		C Class	
Sl No.	**Name Of Equipment**	**Sl No.**	**Name Of Equipment**	**Sl No.**	**Name Of Equipment**
1	INDURATING MACHINE (MAIN MOTOR,LUBE OIL SYSTEM,PELLET CAR,BURNER) (1 System)	1	SHEDDER	1	HLS BUILDING BAGHOUSE SYSTEM (1 NO)
2	PROCESS FANS(CA,UDD,WBR,WBE,HE FAN) (5 Nos)	2	MACHINE DISCHARGE SCUBBER FAN	2	HLS SLURRY PUMP -2 NOS
3	UPPER DECK,LOWER DECK(2 Nos)	3	HL 12 CONVEYOR	3	WATER SOFTNER(INDURATING,WET GRINDING)
4	GFR 11A & 11B CONVEYOR(2 Nos)	4	GP 11A-11F CONVEYOR (6 NOS)	4	ESP (HOOD EXHAUST)
5	GP – 12 & 14 CONVEYOR	5	PROCESS PUMP HOUSE	5	ESP(WIND BOX EXHAUST)
6	MO SERIES CONVEYOR(MO11,12,13,14)	6	COOLING WATER PUMP HOUSE (6 NOS)	6	EOT CRANE(BALLING DISC,INDURATING,FILTER PRESS,BALLMILL)
7	P11 CONVEYOR	7	COOLING TOWER (3) ,INDURATING AREA	7	DG SET- 2N0S
8	MIXER(COMPLETE EQUIPMENT)	8	COMPRESSORS (ATOMISING,INST,PLANT AIR)	8	OVER HEAD TANK WITH PUMPS

9	RECIPROCATING GREEN PELLET HYD.PUMP	9	P12,13,14,15 (4 NOS)	9	ADDITIVE BUILDING BAG FILTER
10	HL13,HL14	10	PELLET STACKER(PP2)	10	FILTERPRESS- 6 NOS
11	HL SECTOR GATE	11	FURNACE OIL PUMP (4)	11	BALLING DISK WITH LUBE SYSTEM (7 NOS)
12	ELEC. EQUIP. ROOM(EER- 13)	12	RMHS BUILDING	12	FC11A,B,C,D, E, F (6 NOS)
13	EER 11 ,6.6KV SWITCHBOARD	13	ADDITIVE BALLMILL ,ID FAN & LUBE OIL	13	FC12,13,14,15,16 (5 NOS)
14	EER 12	14	J6 SUBSTATION	14	FILTER PRESS FEED PUMP-3 NOS
15	DCS 11,12,13 ,CONTROL ROOM DCS	15	VIBRO FEEDER	15	COMBUSTION AIR BLOWER(2 NOS)
		16	HLS SCREEN BUILDING	16	WETGRINDING COOLING WATER PUMPHOSE
		17	BALL MILL FEED 11,12	17	COMPRESSOR (DRYING AIR,INST AIR,MEMBRANE)
		18	BALL MILL 1 & 2	18	FCF-11 & FCF-12 weigh feeders(2 NOS)
		19	BALL MILL LUBE OIL SYSTEM	19	LIME COAL SCREW FEEDER
				20	WEIGHFEEDERS CF12
				21	WEIGHFEEDERS LSF 12
				22	THICKENER RAKE SYSTEM
				23	BALL MILL DISCHARGE PUMP- 4 NOS.
				24	THINKENER UNDER FLOW PUMPS-3 NOS.
				25	Agitator SLURRY TANK- 2 NOS.

(Table No.5: Division of PP-2 Equipment)

People – Training and Fitment

As we Know that in process based organization the focus on the work not the person who is doing the job and due to this we focus on multi skilling so that all the manpower from different functions or department can do the job.

This multi skilling will lead to decrease in cycle time and this can be done by designing jobs with overlapping responsibilities. This multi skilling can only be done by the training and on job training of particular job. Training of all the jobs will start according to the ABC analysis of the all processes. Training of A-type processes will start first and then B-type processes and lastly C-type processes. There are 4 different functions or department in JSPL Barbil, pellerizationplant :

1. Operations
2. Mechanical maintenance
3. Electrical
4. Instrumentation

The training of the people will be done in three categories

1. Uni Athlete
2. Bi Athlete
3. Tri Athlete

Uni athlete are those people who knows their own functions propely and can do the job whwnever required and they will not need any kind of training in their own functions.

Bi athlete are those people who knows their own job and one from different functions or department. They must be skilful for their own job and any job from different functions or department.

Tri athlete are those people who knows their own functions properly and two different jobs from two different functions or department respectively.

Who can be Uni, Bi, Tri athlete can be explained as follows:

	Operations	Mechanical Maintenance	Electrical	Instrumentation
Operations	**UNI**	**BI**	**TRI**	**TRI**
Mechanical maintenance	**BI**	**UNI**	**TRI**	**TRI**
Electrical	**TRI**	**TRI**	**UNI**	**BI**
Instrumentation	**TRI**	**TRI**	**BI**	**UNI**

(Table No.-6: Uni, bi, tri athlete explanation table)

So, the training is done according the A-type, B-type and C-type category of processes and the skill rating of manpower is done according the above table of Uni, Bi, and Tri athlete.

After the skill assessment of all the manpower who has taken the training, manpower power mapping will be done according the defined area of the pelletization plant which is known as HPPT area.

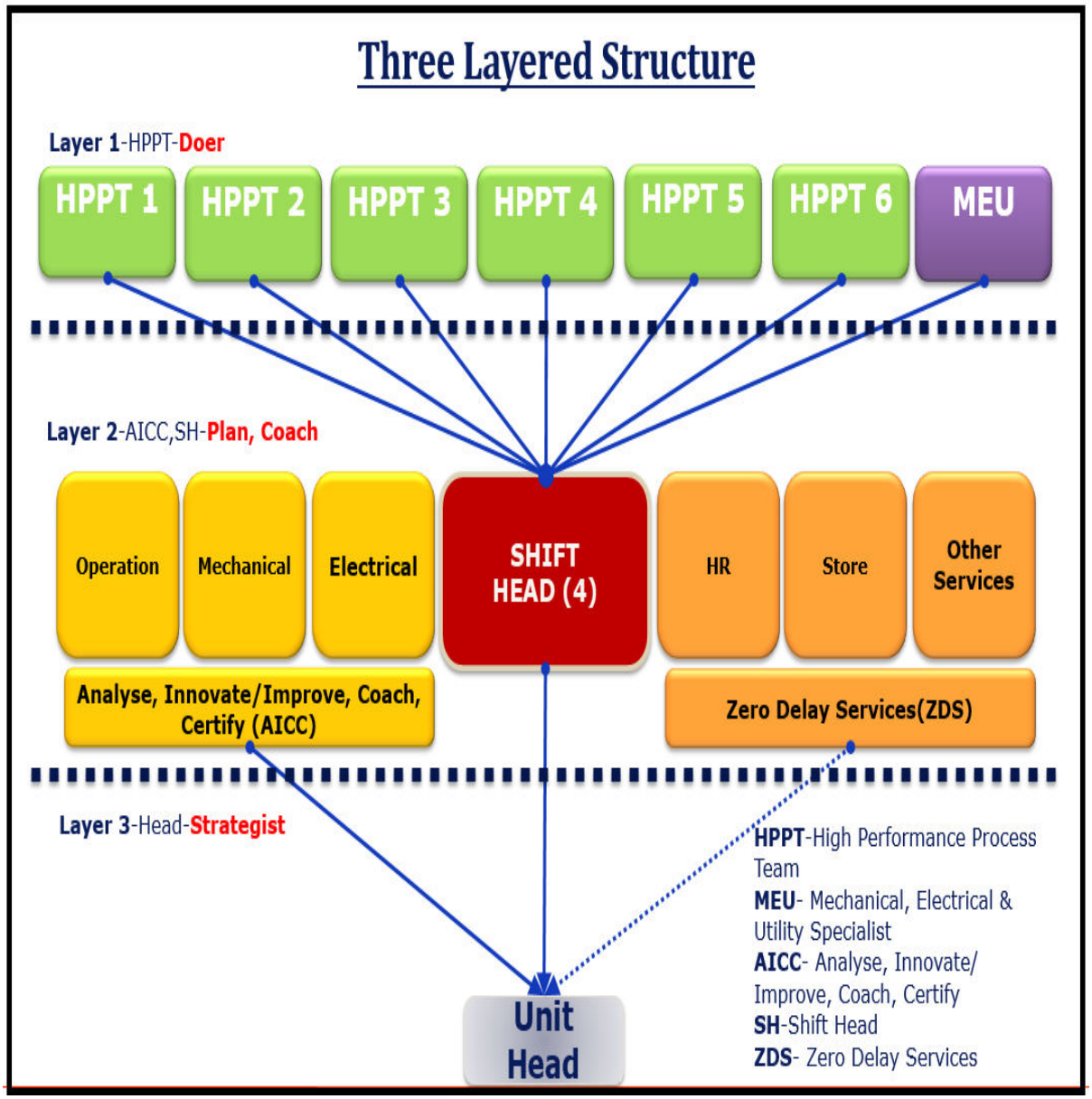
Training Tracking Sheet					Function	Function	Function	Function
					HPPT	HPPT	HPPT	HPPT
Sr. No.	**Major Process**	**Title**	**Process Code**	**HPPT No.**	Employee Code	Employee Code	Employee Code	Employee Code
					Designation	Asst. Engg	Asst. Engg	Sr. Operator
					Name	Name	Name	Name

(Table No.-7: Training Tracking Sheet)

Structure

In order to implement process based organisation in JSPL Barbil, Pelletization plant, we need a proper structure for the organization.

So, in JSPL Barbil, Pelletetization plant we have three layer process based organization structure. The three layer structure is shown below;



(Figure No.-8: The Three layered structure of Process based organisation in JSPL Barbil)

The above three layered structure is consist of Process tem which will focus on some group of processes only and then AICC, Shift Head and ZDS which will act as centre of excellence and finally Unit head who will lead all of the them. The first two layer will directly report to Unit Head.

First Layer of Process based organization structure

The first layer of three layered structure of process based organization consist of High Performance Process Team (HPPT) and Mechanical, electrical and Utility (MEU).

High performance process team is a specialized team consist of people from mechanical maintenance, operations, electrical and Instrument. They all will work together in their own defined area. There may be some are which is not so much involved in production but they need specialized manpower and this can be from every functions or departments. This team is known as MEU.

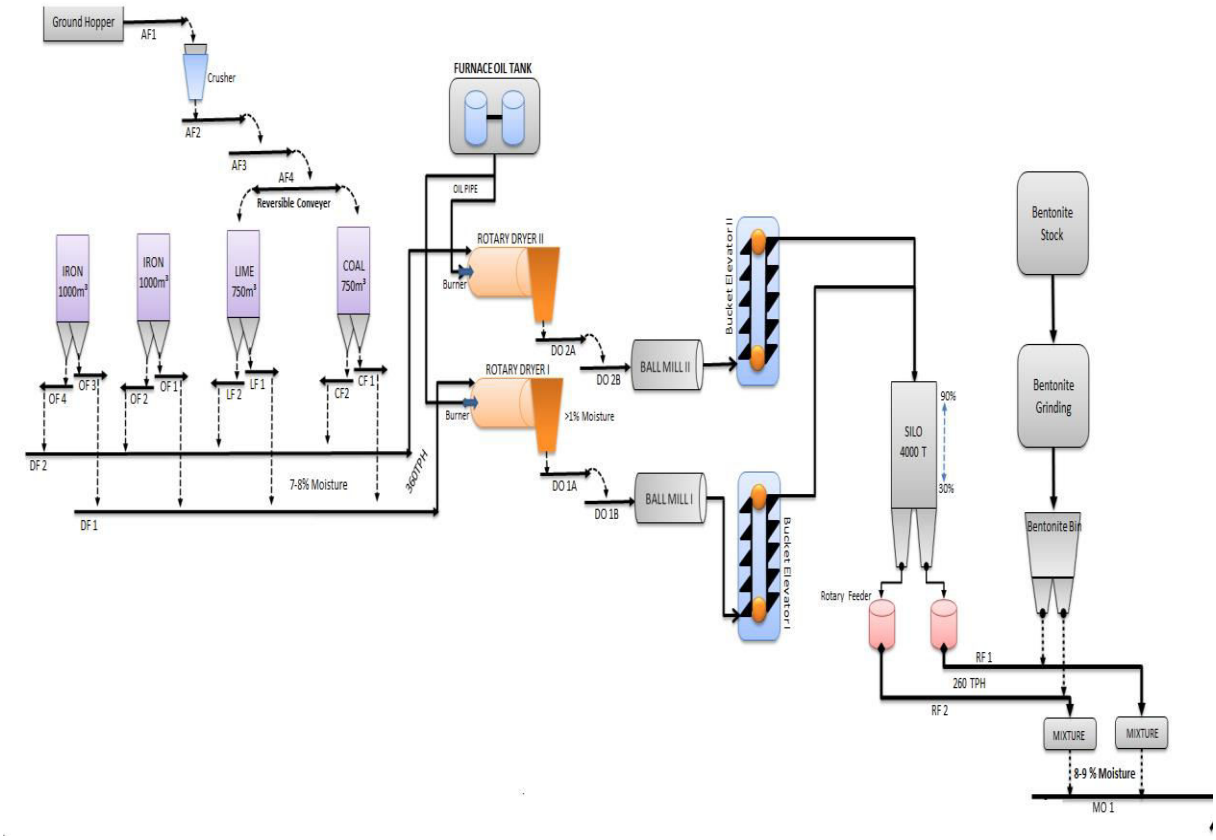
In JSPL Barbil, Pelletization plant, we divided in 6 different area for different HPPT. The areas are selected such that the on ground travel distance should be less than 15 minutes.

The areas are named as:

1. HPPT 1 Area
2. HPPT 2 Area
3. HPPT 3 Area
4. HPPT 4 Area
5. HPPT 5 Area
6. HPPT 6 Area

HPPT 1 Area is consist of:

1. RMHS Bin
2. Rotary Bin
3. Ball Mill
4. Mixer Area till MO 1
5. Bentonite Grinding
6. EER 1
7. EER 2

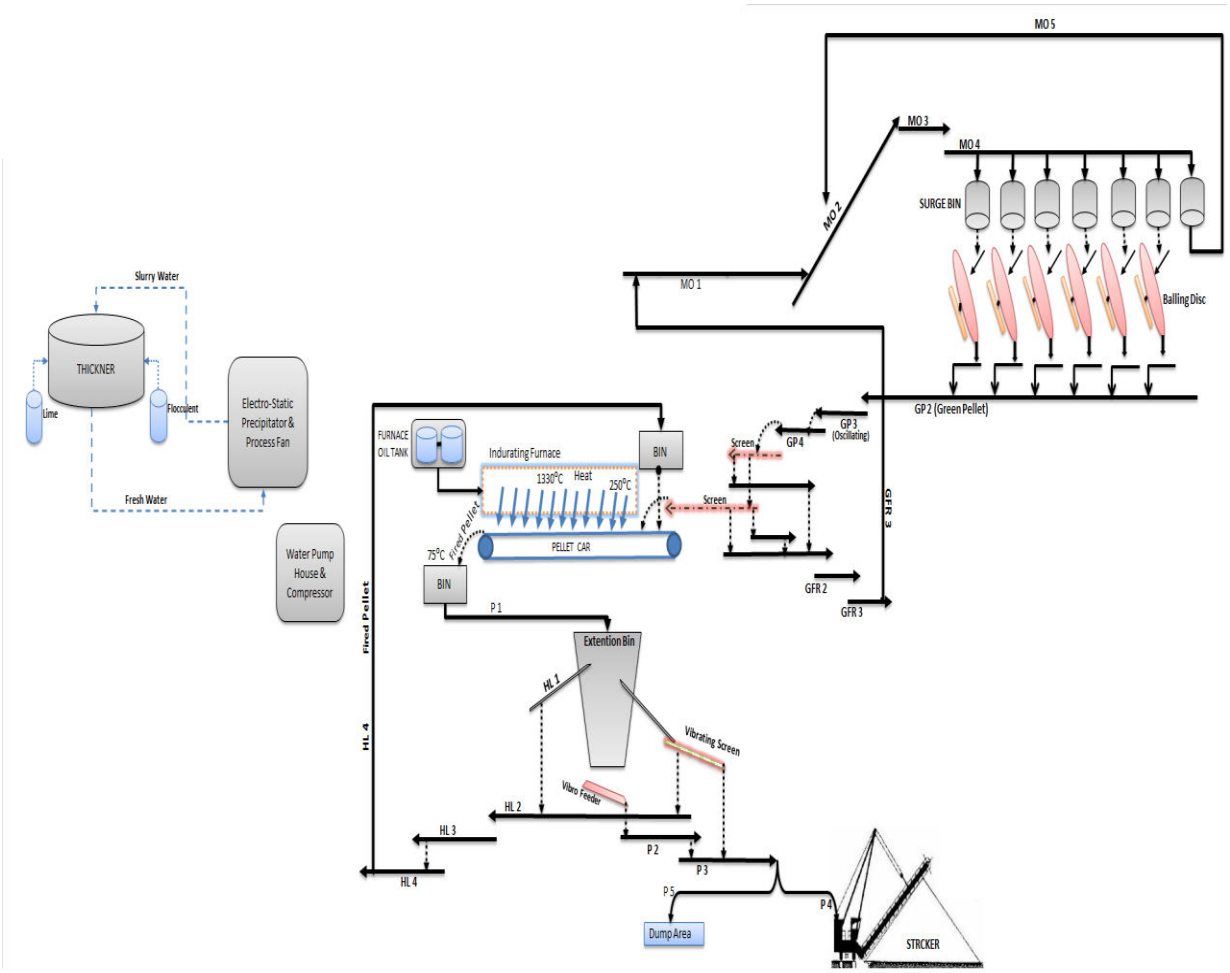


(Figure No.-9: HPPT-1 Area)

HPPT 2 Area consist of:

1. Balling Disc
2. GP screening Area
3. Induration area
4. HLS Area
5. Stacker
6. EER 3
7. EER 4
8. EER 5

Above area can be shown in figure as:

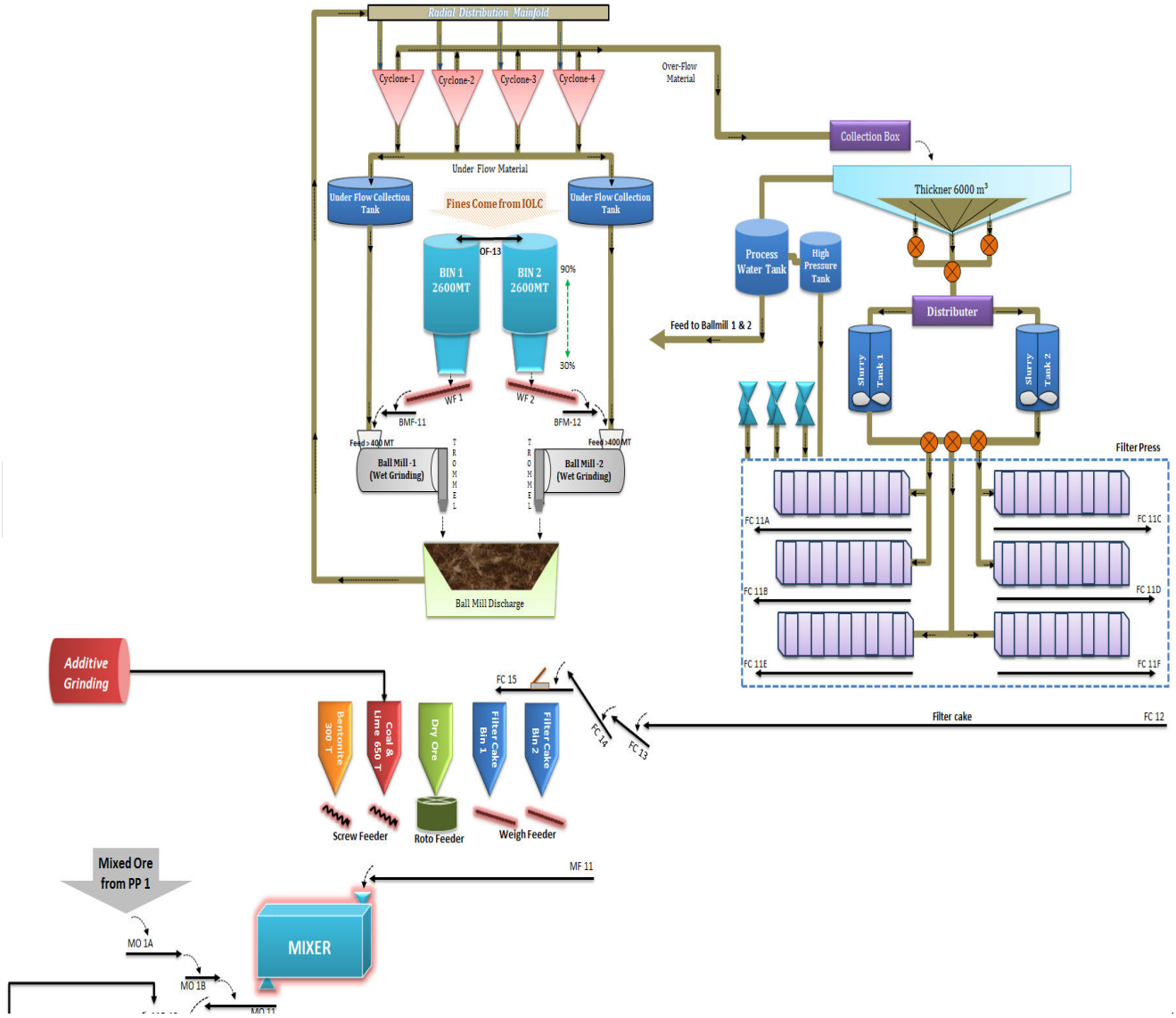


(Figure No.-10: HPPT 2 Area)

HPPT 3 Area Consist of:

1. Wet Grinding Area
2. Thickner
3. Filter Press
4. Additive Grinding
5. Filter Cake,Lime, Coal, Bentonite Bins
6. Mixer till MO 12
7. EER 11
8. EER 11 A
9. EER 12

Above area can be shown in figure as:

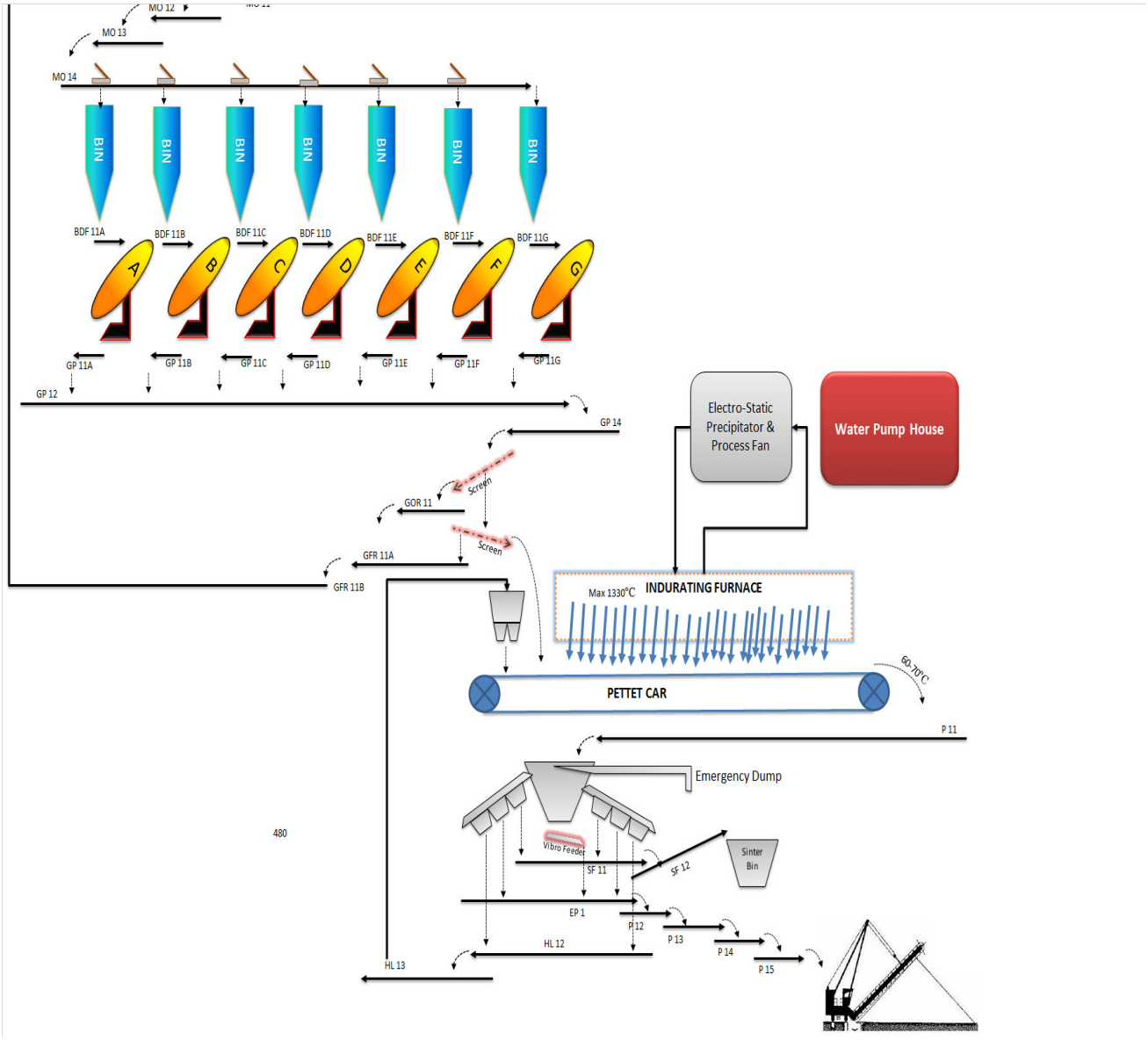


(Figure No.-11: HPPT 3 Area)

HPPT 4 Consist of :

1. Balling Disc area
2. GP Screening Area
3. Induration Area
4. HLS
5. Stacker
6. EER 13

The above area can be shown in figure as:



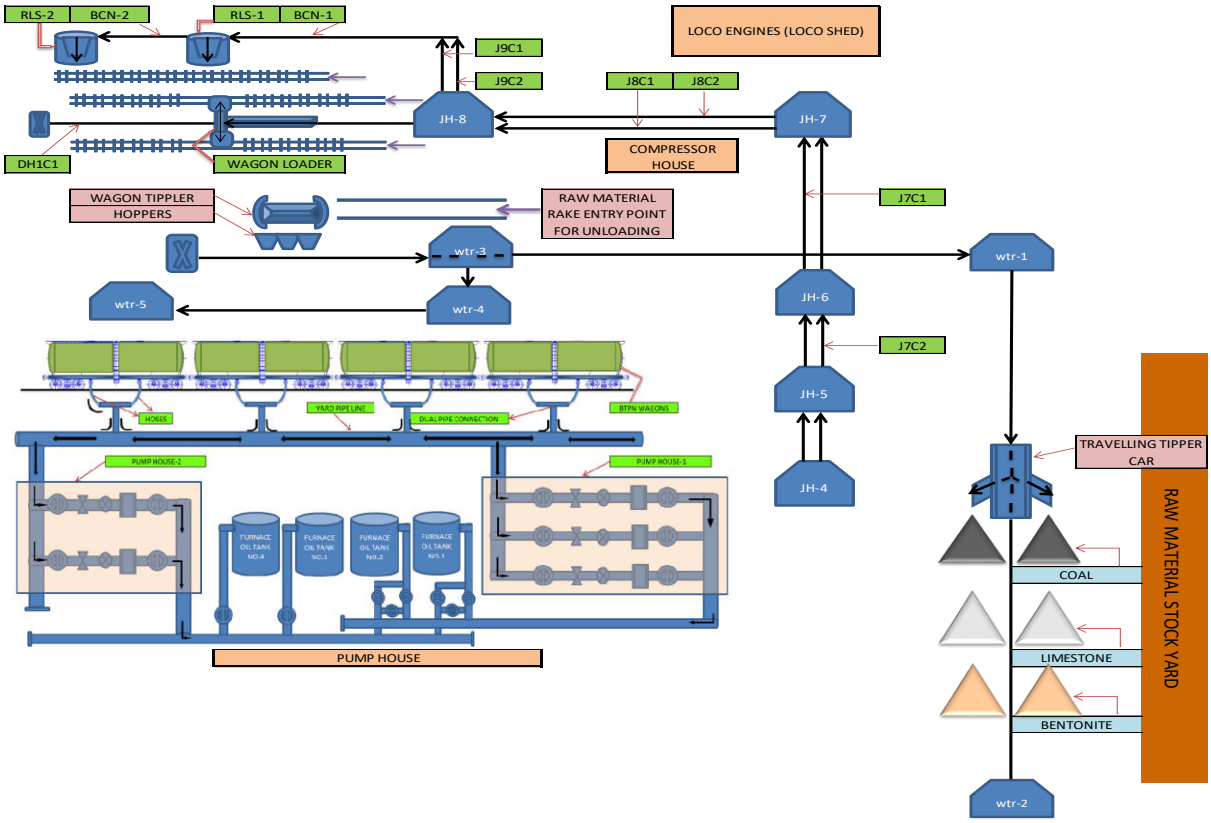
(Figure No.12: HPPT 4 Area)

HPPT 5 Area consist of :

1. J7C1 ,J7C2
2. JH7
3. J8C1 ,J8C2
4. JH8
5. DH1C1
6. Wagon Loader
7. Wagon Tippler
8. Side Arm Charger

9. W-TR 1,2,3,4,5
10. RLS - 1 &2
11. Loco Engine 1,2
12. compressor house
13. FO Bulk Storage and Pump House 1 & 2

The Above area can be shown in figure as:



(Figure No.-13: HPPT 5 Area)

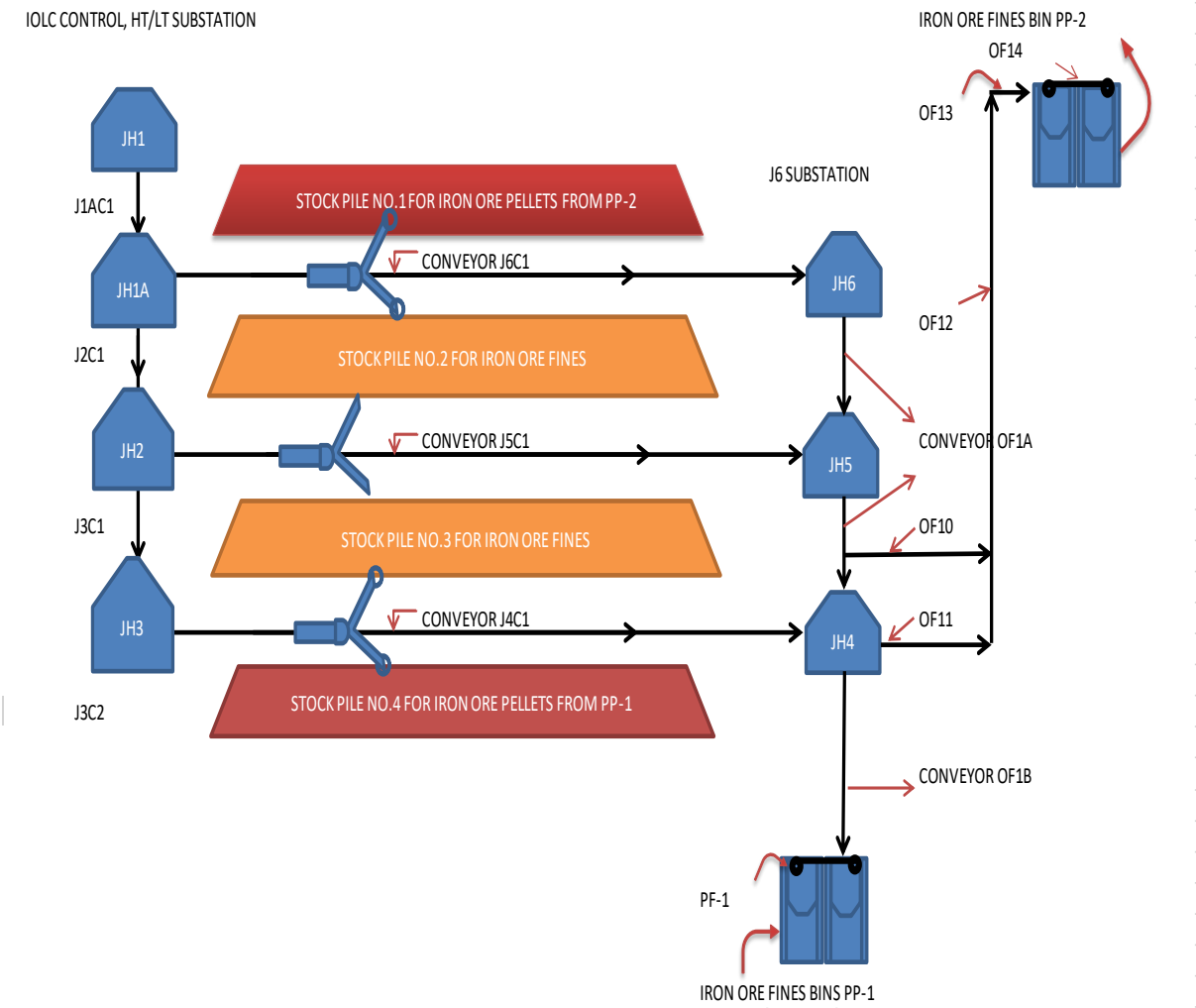
HPPT 6 Area consist of:

1. JH 1,2,3
2. Reclaimer 1,2,3
3. Yard Conveyor J5C1,J6C1,J4C1
4. JH 4,5,6
5. OF1A drive
6. OF1B-PF-01, RMHS 1,2
7. OF-10, 11,12,13,14-PP2
8. IOLC CONTROL

9. HT/LT SUBSTATION

10. J6 SUBSTATION

The Above Area can be shown in figure as:



(Figure No.14: HPPT 6 Area)

Manpower Allotment to every HPPT Area on as is basis:

Every HPPT area has their own list of equipment and processes. The equipment consist of processes from Mechanical maintenance, operations, electrical and Instrumentation. So, the manpower should be like that the people who are allotted to particular High Performance Process Team (HPPT) should have skill and knowledge in that particular HPPT area. This manpower is in as is basis and this allotment is done by consulting respective departments and people from different functions or departments.

In JSPL Barbil, there are two type of manpower working one is On Roll and other is Contractual. After consulting different departments and people from different functions and department, we allotted the manpower to 6 HPPT, MEU, AICC, Planning and Shift Incharge as shown:

	Operation			Mechanical Maintenance			Electrical			Instrumentation			
	Regular	Contactual	Total	Regular	Contactual	Total	Regular	Contactual	Total	Regular	Contactual	Total	Total
HPPT 1	16	5	21	12	13	25	5	5	10	2	2	4	60
HPPT2	18	5	23	8	13	21	6	5	11	2	3	5	60
HPPT 3	13	8	21	13	13	26	6	5	11	2	3	5	63
HPPT 4	17	4	21	11	13	24	5	5	10	3	3	6	61
HPPT 5	13	12	25	3	13	16	6	6	12	0	0	0	53
HPPT 6	12	35	47	2	13	15	7	6	13	0	0	0	75
MEU	0	0	0	1	3	4	5	0	5	1	0	1	10
AICC	4	0	4	3	0	3	3	0	3	1	0	1	11
Planning	0	0	0	0	0	0	0	0	0	0	0	0	0
Shift Incharge	5	0	5	7	0	7	3	0	3	1	0	1	16
	98	69	167	60	81	141	46	32	78	12	11	23	409

(Table No.8: Function wise Manpower Allotment)

Above manpower allotment is according to Functions or departments and we have also done allotment according designation of manpower.

	DGM	AGM	MGR	DM	AM	Supervisors	Worker	Contractual	Total
HPPT 1		1	0	1	6	15	9	23	55
HPPT 2			0	3	6	18	9	26	62
HPPT 3			0	5	6	10	8	25	54
HPPT 4			1	4	8	12	9	25	59
HPPT 5			1			14	7	31	53
HPPT 6					2	10	9	54	75
MEU			3		2	6	4	9	24
AICC	3	7	1						11
Planning						0			0
Shift Incharge		3	8	5					16
								Total	409

(Table No.9: Designation wise Manpower Allotment)

Managerial Implications on Process Based Organization:

Now a days many firms move towards the integration instead of the division of labour, jobs and the way how employees collaborate change dramatically. The implementation of multi-disciplinary, cross-functional process teams is one of the crucial success factors of the evolution to a process based organization. These teams give more responsibility, decision making power and flexibility where it is needed, so that the organizational performance increasingly depends on process teams and individual employees working within these teams. Jobs become more complex and more challenging in process-based organizations. Employees have to be empowered as their work is more self-directing.

Effectively working process teams can improve the organization of the process or they can adjust it swiftly to changes in the market place as they have to a large extent autonomy over the process. This continuous adaptation and change implies that process teams become learning centers with improved change capability over time. Similarly, process owners and frontline managers are the company's entrepreneurs within a process-based organizations: they are the closest to the process teams and the customers, they know the competitors best and are knowledgeable about the best-practice technologies in their industry. However, frontline managers resign themselves to the role of operational implementers if direction and control from above is too autocratic.

Shifting from a structure-based to a process-based organization model implies that middle and

top management roles have to be changed drastically. In the traditional company top-level managers act as chief corporate entrepreneurs, setting corporate strategy and implementing it by means of strategic planning tools. Middle managers played the role of administrative controllers and frontline managers became mere operational implementers. This set of management roles are at odds with the basic assumptions of a process based organization. The new roles and responsibilities are as follows.

Frontline managers are no longer the implementers of top-down decisions but they become the primary initiators of entrepreneurial action. Thanks to the customer oriented process structure, process teams and owners are ideally placed to observe the ongoing changes in the

economic environment and to evaluate changing needs of the customers. They might also be very well aware of potential new markets, products or customers.

Releasing their entrepreneurial forces is one of the major requirement of developing and sustaining competitive process-based companies. In this respect, middle managers become key

resources to frontline managers, coaching and supporting them in their activities. They also link dispersed knowledge, skills and best practices across businesses. Overall, they play the role of capability developers integrating the diverse capabilities of several process oriented business. Within this context, top management no longer acts as corporate entrepreneurs controlling strategic content but they create an overarching corporate purpose and ambition which challenges the existing operations and strategies. They shape the organizational context and create the challenge and commitment to drive change.

Many top-managers of companies that switched to a process-based organization recognized that frontline managers have to be empowered in order to stimulate them to act in a more entrepreneurial way. This requires that the structural hierarchy pyramid is inverted, so that the

process-based business units become the basic structural unit shifting the locus of power "down" in the hierarchy. Inverting the pyramid has been a popular idea within companies that were going through a restructuring, delayering and downsizing process. Many of them have experienced that cutting costs and enhancing productivity does not necessarily result in a stronger competitive position in the long term. The role of middle and top managers has to be redesigned to develop and sustain these coordination mechanisms. They no longer control but support the frontline entrepreneurs, they become their developmental coaches. In this way, the organizational configuration changes from an inverted pyramid into an integrated network which is conducive to both the blossoming of frontline entrepreneurship and cross-unit learning.

In our JSPL Barbil Plant I have divided the whole organizational unit into six High Performance Process Teams (HPPT).Several things are associated with this. These are:

- Captain and Vice-Captain
- MEU
- Shift Head
- AICC Panel

I have defined the roles and responsibilities of all these panels in the Process based organization.

Roles and responsibilities of Captain

- Report to the Shift Head.
- Decide on team allocation for or during the shift in terms of job rotation or in absence of a team member.
- Monitor the performance of each member through observation.
- Prepare shift performance reports and maintain records.
- Recommend leave for the members after ensuring alternate in consultation with shift head to HR.
- Ensure completion of all maintenance / breakdown work in his area by checking machine is smoothly operating.
- Record abnormality (not breakdown) highlighted by team member during inspection and keep it open till issue resolved fully.
- Take care of dress, shoes, floor, machine health, and tools.
- Have Daily meeting to understand any personal, urgent issues, and daily performance.
- Have weekly team meeting to discuss weekly team performance, how to better it in future.

Sl. No.	Captain	Frequency	Duration per Unit (Mins.)	Total Duration (Mins)
1	Access the HPPT Area and read Log Sheet (Computer)	1/Shift	15	15
2	Assign work to himself and HPPT members in shift	1/shift	5	5
3	Manage issue – Inter and Intra HPPT issues related to material and machine	6/shift	5	30
4	Area round	4/shift	5	20
5	Leave	1/shift	5	5
	Carry out self work (Playing Captain)	1/Shift	330	330
6	Write Log Sheet	1/Shift	10	10

7	Miscellaneous Activities		25	25
8	Provide inputs to prepare shutdown protocol and all other improvements	1/Shift	10	10
				450/Shift

(Table No.-10: Role of Captain)

Role of Shift Head

- Shift head (End to End) is responsible for complete plant in a shift.
  - Take Round of the Plant
  - Inter and Intra departmental coordination
- Coordinate with the Captain / Vice-Captain of HPPTs.
- Escalated Issue Management
- Monitor the performance of all the teams.
- Approve and forward application for loan & advance of the members to HR Rep.
- Should execute the Production Plan for his shift through HPPT.
- Should execute Preventive Maintenance Schedule for his shift
- Issue deviation slips
- Provides guidance to team members to accomplish production goals and meet targets

Sl. No.	Shift head	Frequency	Duration perUnit (Mins.)	Total Duration	
1	Take plant round before the shift starts and Read log book at the beginning of shift	1/Shift	45	**45**	
2	Discuss with HPPT C/VC on implementation plan to achieve - team wise and shift wise target	1/shift	30	**30**	
3	Coordinate with RM Procurement, other plant and auxiliary plants	6/Shift	5	**30**	
4	Take round of the plant for micro inspection of processes and Assets	1/Shift	120	**120**	
9	Counsel/Guide teams (HPPTs) and individuals and connect with other functions	20/shift	5	**100**	
5	Analyse shift report and consumable report	1/Shift	15	**15**	
6	Analyse Breakdown	1/Shift	30	**30**	
7	Escalate issues (Why-Why)	1/Shift	5	**5**	
8	Write log sheet	1/Shift	15	**15**	
10	Miscellaneous Activities		40	**40**	
11	Analyse Monthly production report and cost sheet	1/Month	30	30	
12	Monitor budget consumption report	1/Month	120	120	AICC

13	Provide inputs for Budget Preparation	1/ Year	480	**480**	ALL AICC, HOD & SH

(Table No.-11: Role of Shift Incharge) **430/Shift**

MEU work distribution

- **MEU SHIFTS -** Specialised MEU team consisting of Mechanical and Electrical Members in Shifts to Handle any breakdown, carry LLF low work load intensive PM.
- To handle Improvement tasks, Projects, Continuous Improvement, ISO, Support Shut Down Maintenance, Preventive Maintenance (Weekly, Quarterly, Yearly etc. in sync with Shift team).

HOD

Sl. No.	HOD	Frequency	Duration (Mins.)
1	Take Plant round	1/ Day	60
2	Attend Meetings	Daily	120
3	Directly add value through Modification, Up gradation, Deletion, Addition	Daily	120
4	Guide AICC Members (1 Hr. Per week per member)	1/Day	60
5	Carry out Unplanned activities/Crisis	Daily	90

450/Day

Note - 5-7 Days a month he will have to stay back for 4 Hours to do peak work

(Table No.-12: Role of HOD)

CHAPTER-4

Conclusion

Process-based companies have become fashionable during recent years. They are a powerful answer to the problems functional and product oriented structured firms faced. Despite its success the literature on process-based companies has blind spots when it comes to setting up a process based business unit or organization starting from process teams. One of the related issues that deserves much more attention is the way how process-based organizations are structured. In this paper, I argue that process-based organizations also have a completely different organizational structure than structured-based ones. I suggest that a multidimensional structure with process ownership as a dominant dimension is a viable solution for many companies.

Two key ideas are at the basis of what a viable process-based organization might be. First, a company is divided into basic organizational units which are organized around core processes. Second, other type of processes are added to these units so that they can operate in a effective and efficient way. To make key ideas operational it is necessary to make a distinction between different types of processes and to look for the complementary roles they play in setting up a process-based business unit. Furthermore, processes become operational only if they are defined in an industry or firm specific way: this is because core processes are derived from a corporate or competitive strategy which is by definition tied to particular characteristics of the company and the industry.

Competitive trends are forcing companies to become more efficient each day. There is a very small number of companies which can afford themselves .. The same applies in business as well. For most of the companies the truth about a process orientation would be in the middle. By balancing an organization's functional and horizontal orientation and maintaining the balance needed between the vertical (functional hierarchy) and the horizontal (processes), they would be able to achieve the short- and long-term health of an organization.

Further, I argue that middle and top management in process-based companies have to play completely different roles than in the traditional structure-based company. This new role of the different management levels allows a company to be more responsiveness to new competitive requirements that may quickly changein complex and dynamic environments. In this way process-based companies may have stronger dynamic capabilities than traditionally structured companies.

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