

Human Resource Planning

Planning process is the process of forecasting the future to cover the gap between the present and future. When this planning function meets with the future requirement of the human resource management, it is referred as human resource planning. HR planning is a process of forecasting the future human resources requirements of the organisation and determining as to how the existing human resource capacity of the organisation can be utilised to fulfil current requirements.

Although HR planning is not a new concept as kautilya suggested a systematic plan to manage the human resources around 1200 BC. Minimum wage and incentive wage plans were in Babylonian Codes of Hammurabi around 1800 B.C. prior to industrial revolution human resource was used to be treated like commodity but latter occupiers started giving special attention towards the proper planning of the workforce. As without planning no function can be executed that is why is cannot be believed that human resources or personnel management was possible without human resource planning. Thus, human resource planning was present form that time period when human resource management came into the existence. As initially human resource management was present in nascent state human resource panning was also present in budding condition. For an example when the Taj mahal would have been built it would have been planned that how many workers would be required. As a specialized field of human resource management, human resource planning.

Concept

It is human resource planning (HRP) which helps the management in mitigating the future demand of the human resources to main the productivity of the organization. HRP also keeps close eyes on the demand and supply of the workers.

It is common misconception that HRP is the process related to the planning for the demand and supply of the human resources only. Although human resource planning is a process of planning all the functions of the human resource management like planning for the training or the employees and its schedule, methods and goal planning for the performance management of the employees, planning for the compensation for the employees etc.

Role of HR planning

There are following role of the HR planning in an organization

1. HR managers are in a stage of anticipating the workforce requirement rather than getting surprised by the change of event.
2. Prevent the business from falling into the trap of shifting workforce market.

3. Work proactively as the expansion in the workforce market is not always in conjunction with the workforce requirement of the organisation in terms of professional experience, talent needs & skills.
4. Organisations in growth phase may face the challenge of meeting the need of critical sets of skills, competencies and talent to meet their strategic objectives so that they can stand well prepared to meet the HR needs.
5. Considering the organisational goals, HR planning allows the identifications, selection & development of required talent or competency within the organisation.

Broad Steps of HR planning & techniques (Quantitative & qualitative)

Human resource planning may involve various step while planning demand for the manpower of workforce. These broad steps are as following including the various techniques;

1. Environmental Scanning
2. Demand forecast for human resource
3. Demand forecast
4. Estimating Manpower gap and implementation

1. Environmental Scanning

While doing HR planning managers should scan the environment (External and internal environment) to analyse the impact of the various factors likely impact of those trends on the work, on the workforce, and on the human resource department; and determine the desired impact of those trends considering future initiatives and plans of the organization

2. Demand forecast for human resource

Crucial component of human resource planning is demand forecasting for the human resources in an organization. Forecasting of the demand of manpower depends on the various factor present in internal and external environment. The external factors are competition level in market, economic conditions, social trends, laws and regulatory bodies and changes in technology. Internal factors are organizational structure, budget, production targets, new products and services and employee separations.

Following are the elements should be considered while doing manpower demand forecasting;

- i. **Time Span:** Time span means time period. Before starting the manpower forecasting in an organization, manger should determine that what is the time period for which the manpower forecasting is to be done. These time periods can be as following;
 - a. Short-term forecast
 - b. Medium-term forecast
 - c. Long-term forecast
- ii. **Levels:** Manpower planning can be done at tow levels;
 - a. Micro forecast: At departmental level
 - b. Macro forecast: At organizational level

For conducting demand forecasting following techniques are used;

- a. **Work Study Method:** Work study is also known as workload study. Under this method, it is analysed that whether any employee is overburdened or under burdened. This study is directly linked with the productivity. Main motive of this study is the best utilization of man, machine, material and money to achieve higher productivity. To achieve this objective, productive hours of the employees are calculated.

Illustration:

Word Load Study

Job	Hour Per Job	Year 2018 (Days)	Man Hour
Installation	2.5	125	312.5
Maintenance	1.5	45	67.5
Emergency	1.1	4	4.4
Total Working Hours			384.4
Solution			
No of Man Required = Total Working Hr/Productive daily working Hr	100% working Hours	48 Man	8 working Hr. as per The Factories Act 1948
No of Man Required	20% Leave	60 Man	6.4 working Hr
No of Man Required	20% Leave + 20% Fatigue	80 Man	4.8 working Hr

- b. **Ratio Methods:** Ratio methods are statistical method to analyse the demand forecast. These ratios are obtained with the help of past data and future requirements.
- c. **Time Series Analysis:** Time series are the method to forecast the future with the help of data obtained from the series of previous years. For this purpose, average method is used.

Time Series Analysis

S. No.	Year	Manpower
1	2015	900
2	2016	950
3	2017	1000
4	2018	900
5	2019	1000

In above illustration projection for year 2020 is 950 (average of previous year manpower requirement). This shows that as per the trends in the year of 2020 manpower requirement will be 950. As cons of the forecasting this projection may be right or may not be accurate.

- d. **Delphi method:** Under this method views or opinion are collected from the experts about the future requirement of the workforce in the organization.

3. Current HR supply

Assessment of current human resource availability in the organisation is the foremost step in HR planning. It includes a comprehensive study of human resource strength of the organisation in terms of numbers skills, talents, competencies, qualifications, experience, age, tenure, performance, grades, compensation, etc. following techniques can be used for analysing current HR supply;

- a. **Competency mapping:** competency is combination of knowledge, skill, attitude and aptitude. All the employees are compared based on their competencies in every department. In below illustration employees are being rated on the scale of 1-5.

Competency Mapping

S. No.	Employee Name	Employee Code	Department	Designation	Qualification	Experience	Skills	Trainings Attended	Total Score
1	X	X1	HR	Manager					
2	Y	Y2	Finance	Office					
3	Z	Z3	Marketing	A Manager					
*Scores should be given out of 5									

- b. **Employee Turnover index:** Employee turnover means termination of employees from the services of an organization. These terminations can occur for following reasons;

- Layoffs (Downsizing/Rightsizing)
- Vacancies
- Retirements
- Promotions
- Transfers

This employee turnover is also known as attrition rate. Attrition creates loss of manpower along with loss of productivity of the organization. Thus, it is very crucial for the managers to keep a close eye on the attrition rate of the organization. This turnover of employees can be voluntary or non-voluntary. If employees are leaving the organization with their wish is called voluntary turnover while if employees are leaving the organization without their wish or vacancy is being created due to death of the employee is called as non-voluntary turnover.

Attrition rate of employee turnover is major concern for the managers as due to these vacancies are created in the organization which need to be filled. Along with this turnover

creates considerable cost for the organisation for example cost of training given to employees left the organization.

Although value of attrition rate which becomes concern for the managers depends on the nature of the industry. For service sector monthly 7-14 % attrition rate is normal especially for BPOs while for manufacturing sector annual attrition rate even 1% can be a serious concern.

$$\text{Attrition Rate} = (\text{No. of employees left during period} / \text{Average number of employees for period}) \times 100$$

Illustration: calculate the attrition rate with the help of following information of any accounting year of an organization related to manpower.

Criterial	Number
No of Employees at the beginning of year	300
Number of dismissals	3
Number of retirements	4
Number of layoffs	10

Solution:

No of employees at the beginning of year = 300

No of employees left the organization = $10 + 3 + 4 = 17$

No of employees if no recruitment done = $300 - 17 = 283$

Average no of employees = $(300 + 283) / 2 = 583 / 2 = 291.5$ (round off 292 employees)

Attrition Rate = $(\text{No. of employees left during period} / \text{Average number of employees for period}) \times 100$

Attrition Rate = $(17 / 292) \times 100 = 5.83 \% \text{ (Ans)}$

- c. **Cohort Analysis:** Cohort analysis removed the errors of employee turnover index where it cannot be analysed that whether the freshers are increasing the attrition rate or the experienced employees. It is serious matter of concern if experienced employees are increasing the pie of the total employees leaving the organization.

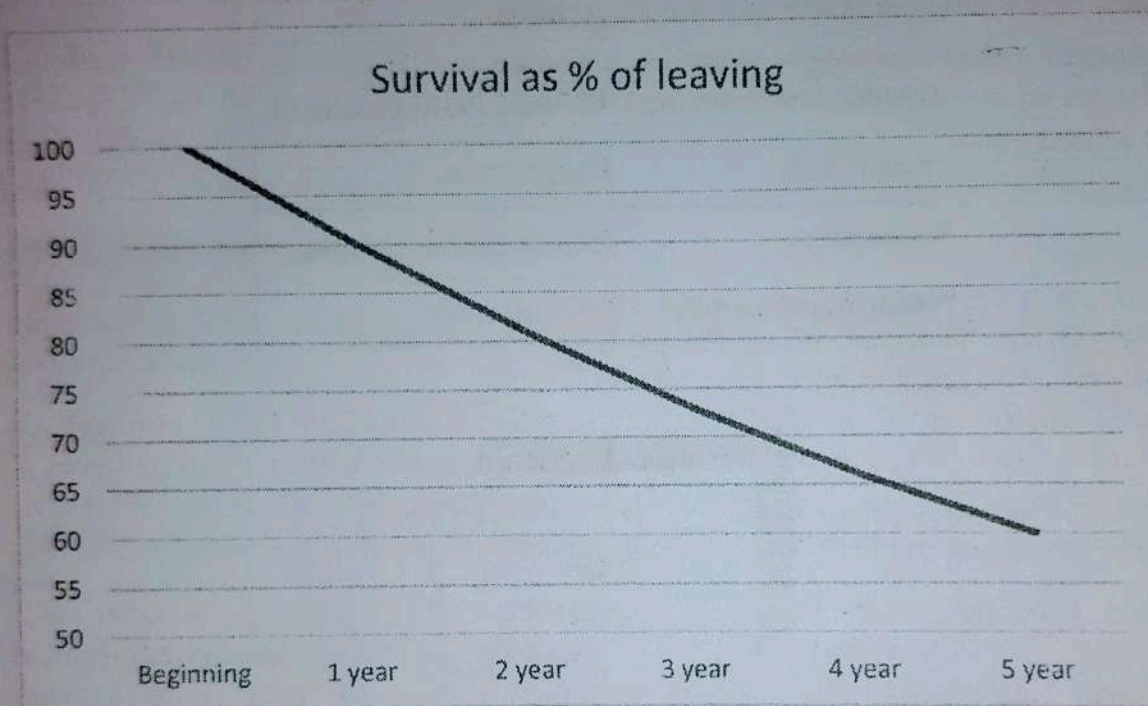
Cohorts are groups of employees who are homogenous in someway and joined the organization at the same time. In private jobs more employees leave the organization within the year or after completing the one year. This happens because such employees don't find them fit for the organization.

Illustration: Make a cohorts chart with the help of following data.

Year	Leaver
First	50
Second	45
Third	40
Fourth	35
Fifth	30

Survival Rate = $\frac{\text{No. of remaining employees}}{\text{No. of engaged employees at beginning}} \times 100$

Length of Service	No of Leaving	Cumulative Leavers	Remaining	Survival as % of leaving
Beginning	0	0	500	100
1 year	50	50	450	90
2 year	45	95	405	81
3 year	40	135	365	73
4 year	35	170	330	66
5 year	30	200	300	60



(Figure: Survival curve based on cohort analysis)

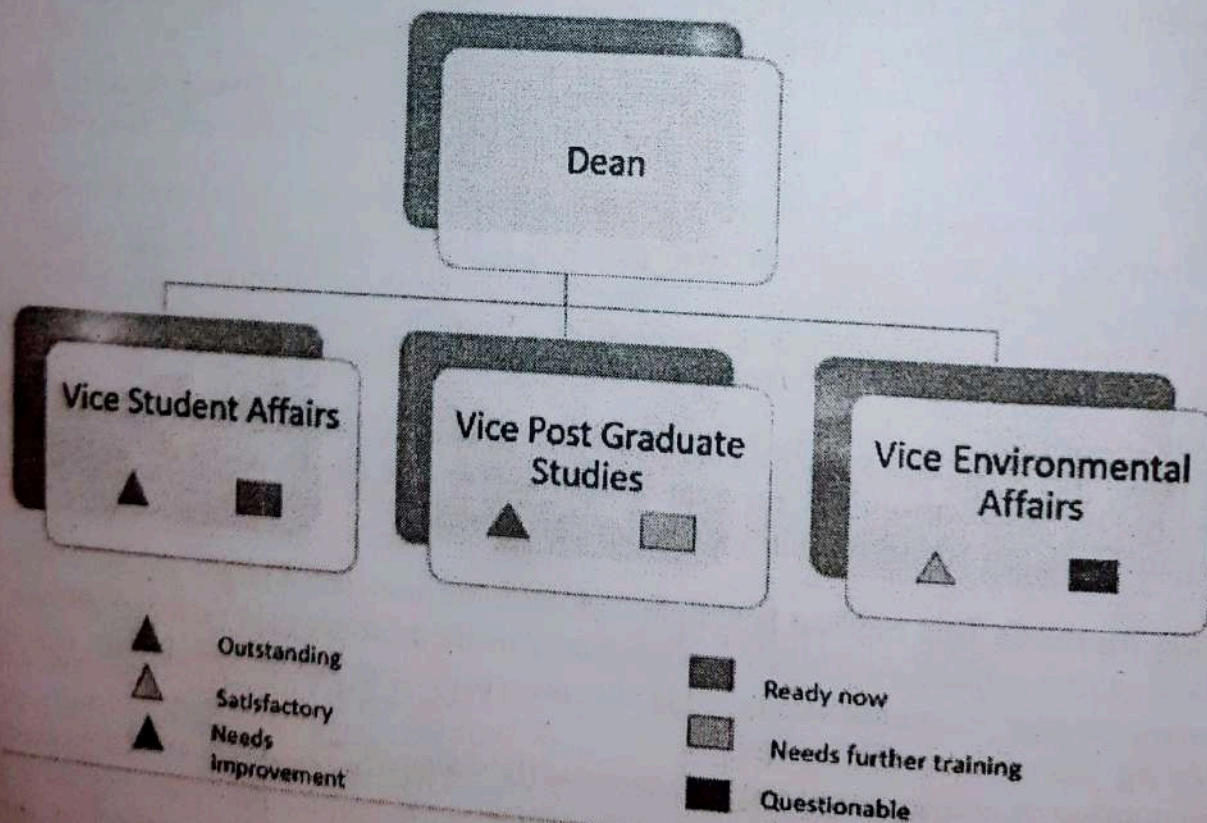
With the help of cohort chart and survival curve two groups can be compared with each other based on their tenure in the organization. For survival of male and female employees in the organization. Based on such information future recruitment policy can be made.

- d. **Census Method:** This method is simple method to be analysed a larger group. While cohort method can be applied on smaller groups census method can be used on larger groups. Based on demographic elements wastage of the manpower can be analysed. For this method following sets of data are required;
- The number of employees at the beginning of the census
 - The number of employees at the end of the census
 - The number of leavers during the census period

- e. **Markov Chain Model:** Markov chain model analyses the horizontal and vertical movements of the employees in the organizational chart. With the help of such information managers can analyse the future vacancies due to promotions and transfers.
- f. **Trend analysis:** By examining the trend of the movement of employees with the help of historical data managers can prepare themselves for the such situation in the near future.
- g. **Replacement chart:** This method is also known as succession planning. This is a process through which senior level opening are planned for and eventually filled. Steps in succession planning are as following;
- Anticipate the management needs.
 - Review Management skill inventory (Education, experience etc.)
 - Create replacement chart

Replacement charts are made on following criteria

Present performance	Promotional potential
Outstanding	Ready Now
Satisfactory	Needs further training
Needs improvement	Questionable



(Figure: Replacement Chart)

4. Estimating Manpower gap and implementation

The next step is to make match current supply with the future demand of HR and create a demand forecast. This is called as gap analysis. It is also essential to understand the business strategy and objectives in long run, so that the workforce demand forecast is such that it is aligned to organisational goals.

The action plan depends upon the following situations:

i. Demand Equals Supply:

if the demand forecast is equal to the supply of the manpower then there is no need to go for the fresh requirement or retrenchment of the existing workforce.

ii. Demand is Less Than Supply:

Under the situation where there is less demand and adequate employees in the organization then managers have to opt for different strategies. Managers can decide for the retrenchment or layoff the surplus staff or can decide to reduce the productive working hours. No new hiring should be done in this situation. VRS (voluntary retirement services) schemes can be opt by the management as well.

iii. Demand is Greater Than Supply:

If the organization feels the shortage of the manpower, it should intensify the effort to bring more personnel in to the organization.

Sourcing Strategy

After reviewing the gap in the HR supply and demand, the management or HR consulting firm develops plan to meet these gaps as per the demand forecast created by them and current supply of the manpower.

This may include various practices like as following

- a. conducting communication programmes with employees,
- b. internal job postings (IJP),
- c. relocations,
- d. talent acquisitions (recruitment & selection),
- e. outsourcing,
- f. Contractual works

Human Resource Planning Process

Process of human resource palling follows various stages. Some stages we have discussed above as broad stages of the human resource planning process. As the first stage of the HR planning process managers must identify the objective of the planning. These objectives could be loss of productivity, loss of performance of the employees, any upcoming project for the organization and simple periodic analysis of the human resources. Once the objective of HR planning is clear managers can move to the next stage of the process.

Second stage of the process is to identify and analyse the current potential and competencies of the existing manpower. This shows the strengths and weakness of the workforce so that future opportunities and treats can be mitigated in a planned way.

Next stage is core function of the human resource planning where managers analyse the future demand of the workforce and current supply of the workforce as we have discussed in detail in this chapter.

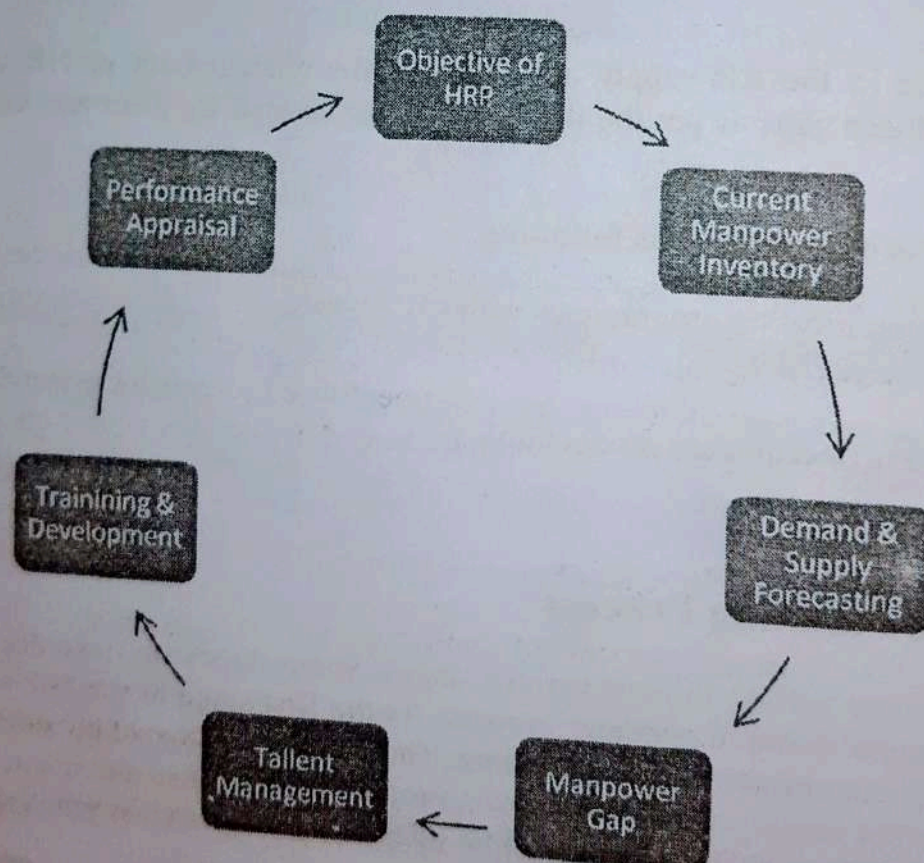
Gap is analysed between the manpower projected demand and current supply of the power. After analysing the gap managers can estimate that what strategy they should opt for.

As the strategy opted by the management workforce is managed. Based on retention or retrenchment strategy of the management employees of the organization are managed.

Training and development is a continuous process in the organization. Whether manager recruit new workforce or managing with the existing workforce they have to train the employees periodically to keep them competitive in comparison to their competitors. We will discuss about training and development of the employees in upcoming chapter of this book.

Last but not the least managers have to check the performance of the employees to reward the hard-working employees and to punish the employees who are not working as per the desire of the management.

Process of human resource management can be understood with the help of following self-illustrative figure as we discussed above.



(Figure: Process of Human Resource Planning)

Need for HR planning

There are following objectives of Human resource planning in an organization.

1. **To forecast human resource requirement:** as we have discussed that HRP helps the management in estimating the future demand of the manpower and current supply of the manpower.
2. **To cope up with the changes:** Business environment is dynamic in nature. To sustain or survive this competitive market one should change accordingly. To change as per the demand of the market management has to plan. HRP helps the management in such planning especially in the area of human resource management.
3. **To promote employee in a systematic manner (Succession planning):** Human resource planning also helps in placing the right employees in the right job at right time. With the help of HRP instead of being surprised with the newly created vacancies in the organization HR managers plan proactively for the succession planning.
4. **To use existing manpower productively:** As we discussed above that with the help of workload analysis, we can analyse how many workers will be required to complete any task. With the help of many other HRP techniques manager plan and distribute the task among the job holders so that their potential can be used at full extent.
5. **To plan all the functions of HRM in advance:** HRP also helps the HR managers to proactively plan about all the other functions of human resource management so that best HR practices can be adopted by the HR managers. If we

Role of HRP professionals

There are three types of roles of HRP professionals:

1. Administrative roles
2. Strategic roles
3. Specific roles

1. **Administrative roles:** It includes managing the organisational resources and employees welfare activities.
2. **Strategic roles:** This function contains formulating HR practices & making strategies for the human resource management to obtain the competitive edge over the competitors.
3. **Specific roles:** It includes collecting and analysing data, designing and applying forecasting systems and employee career management.

Implementation of HRP Program

Various steps are involved during the process of implementation-

1. **Communicate the need for program:** Employees would like to know why the any program is being introduced, and we should let them know that what the significance of the program is.
2. **Explain the program:** Management must explain precisely about the program along with the proper procedure and assign the duties.

3. **Explain what is expected from employees:** Management must discuss how the behaviour of employees is expected to change as a result a new program system.
4. **Establish a feedback mechanism:** No matter how carefully a program is designed, we observe some doubts and questions in the mind of employees. Thus, we should take the feedback of employees before the implementation and after explaining the process. We should also take the feedback after the implementation for the review process.
5. **Utility Analysis (ROI):** Finally, utility analysis is done to observe the value of HRP program and its return in the monetary values.

Impact of Technology on HR Planning

In order to cope with competition, organisations must ensure producing goods and services more efficiently and economically. Advanced computer technology has offered organisations new opportunity to enhance the production process. Computer aided manufacturing (CAM) and computer aided design (CAD) reduce the human resource involvement and shrink the cycle time.

Likewise, information technology is also helping the personnel managers in planning and placement of human resources at the right place at the right time.

Use of technology depends on the size of the organization and complexity of the work. If the organization is large and having a huge workforce, managers need the ERP (enterprise resource programme) software to collect and analyse the data related to human resources. Generally managers use Microsoft Excel to manipulate the data related to human resources but large organization uses SAP, People soft etc as well to manager the human resource data and to analyse them further.