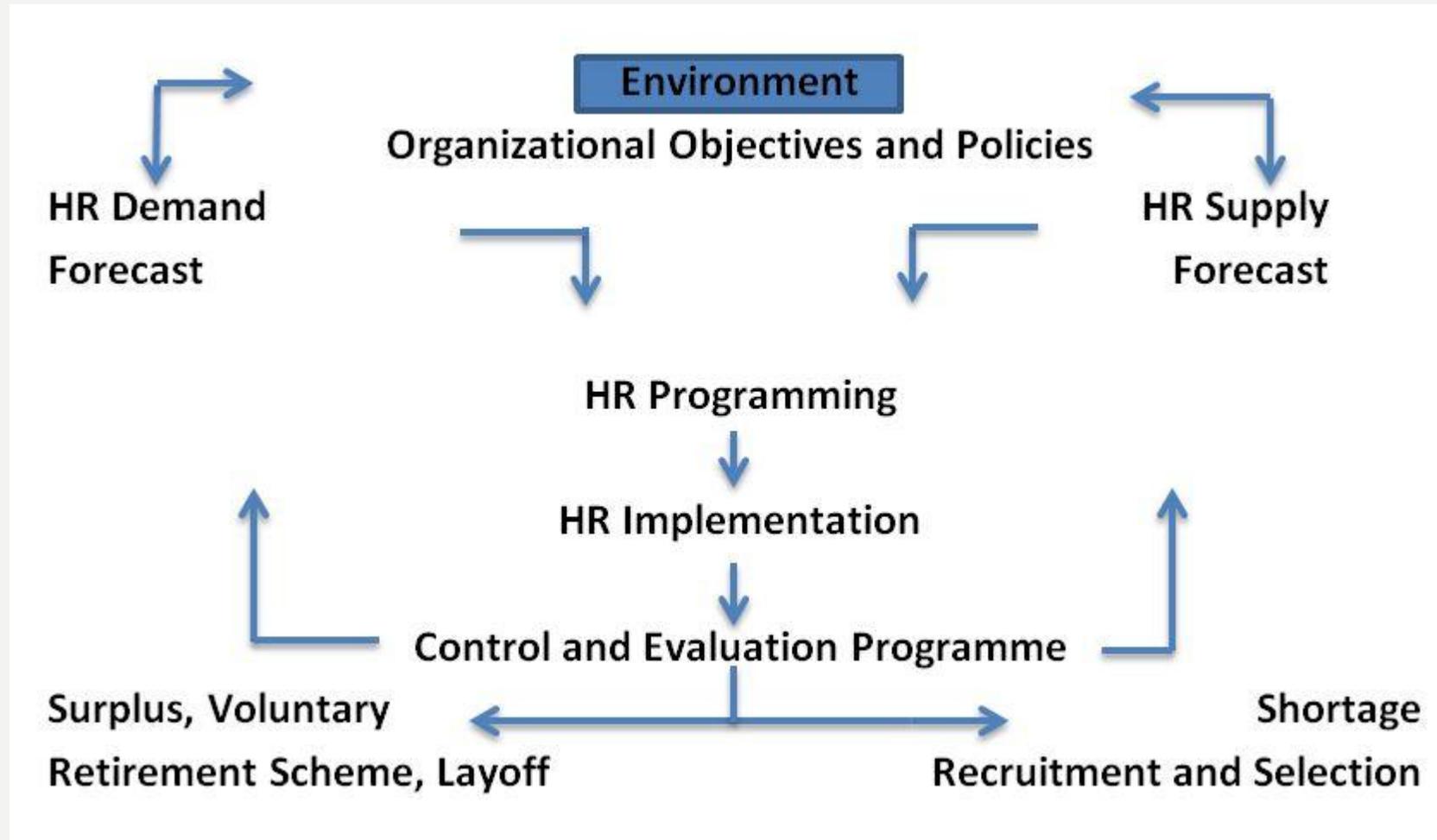


Forecasting the Supply of Human Resources



Process Of Human Resources Planning



HR Supply Forecasting Introduction -

- Human Resource supply forecasting is the process of estimating availability of human resource followed after demand for testing of human resource.
- Supply forecasting means to make an estimation of supply of human resources taking into consideration the analysis of current human resources inventory and future availability.
- For forecasting supply of human resource we need to consider internal and external supply.
 - Internal supply of human resource available by way of transfers, promotions, retired employees & recall of laid-off employees, etc.
 - Source of external supply of human resource is availability of Labour force in the market and new recruitment.

EXTERNAL FACTORS AFFECTING HR SUPPLY FORECASTING -

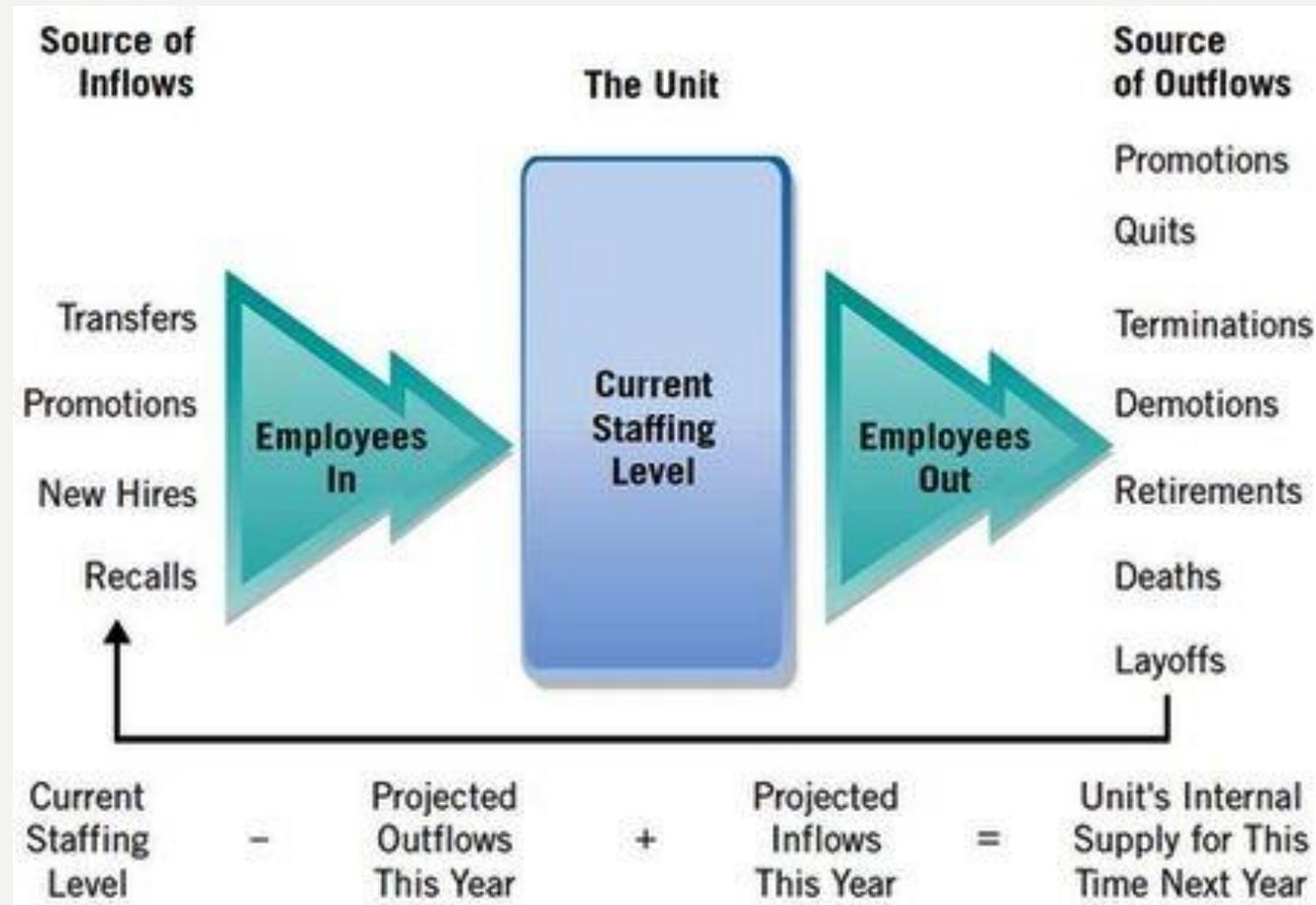
External supply of human resource depends on some factors mentioned below.

- Supply and demand of jobs.
- literacy rate of nation.
- rate of population
- industry and expected growth rate and levels
- technological development.
- compensation system based on education, experience, skill and age.

INTERNAL FACTORS AFFECTING HR SUPPLY FORECASTING -

Internal supply of human resource depends on some factors mentioned below.

- Organizational features (e.g., staffing capabilities).
- Productivity - rates of productivity, productivity changes.
- Rates of promotion, demotion, transfer and Turnover.



IMPORTANCE OF HR SUPPLY FORECASTING -

- ❖ Estimating the net human resource requirements.
- ❖ Prepare the action plan for redeployment, redundancy /retrenchment.
- ❖ Organizing redeployment programs .
- ❖ Organizing redundancy /retrenchment programs.
- ❖ Forecast future from all the sources .

Supply Forecasting Methods:

- ❖ Trend analysis
- ❖ Competency model
- ❖ Replacement Charts
- ❖ Staffing table
- ❖ Succession Planning
- ❖ Flow Modeling/Markov Analysis



1. Trend analysis

- ✓ Trend analysis involves collecting and evaluating data to identify patterns of information that might impact the future.
- ✓ By examining the trends of the past, the HR department can predict the effect of the same activity on the future of the organization, because it is assumed that these patterns will remain stable.
- ✓ A method of forecasting that assumes past trends and ratios in employee movement are stable and indicative of future trends and ratios in employee movement.
- ✓ One of the simplest methods of forecasting future HR supply.
- ✓ **For example**, an organization reviewing historical data may realize that every year, approximately five percent of their staff retire, six percent resign, and three percent are dismissed.
- ✓ Using a simple trend analysis, future HR supply forecasts can be established by assuming an average reduction in internal HR supply of 14 percent per year.

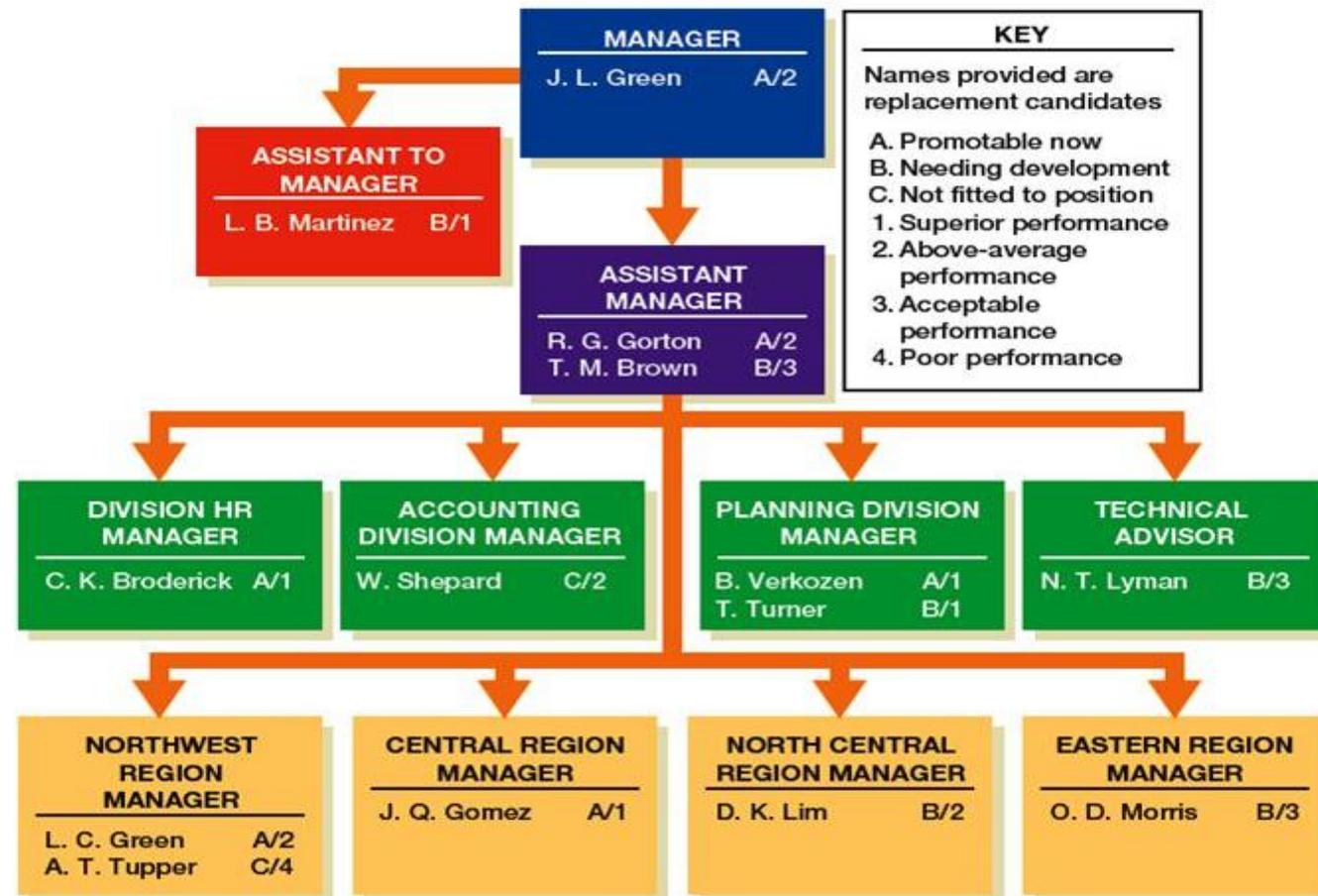
2. Competency model

- ✓ Competencies are behaviors that encompass the knowledge, skills, and attitudes(ksa) required for successful performance.
- ✓ Competency modeling is the activity of determining the specific competencies that are characteristic of high performance and success in a given job..
- ✓ A future-oriented model that first reviews competencies that are aligned with an organization's mission, vision, and strategy, and then aims to identify an ideal workforce in terms of these competencies .
- ✓ Skills/competency models focus on matching the right skills or competencies needed for each job with the skills available within the organization.



3. Replacement chart

- ✓ A chart used to estimate vacancies in higher level jobs and identify how potential HR supply can fill these vacancies via internal movements from lower levels jobs.
- ✓ Replacement charts provide identification of potential replacements for vacancies within an organization.
- ✓ A comprehensive replacement chart will include information regarding possible replacements for vertical or horizontal movement.
- ✓ Generally, a replacement chart includes information about employees' performance, readiness to fill the position, and education.



4. Staffing table

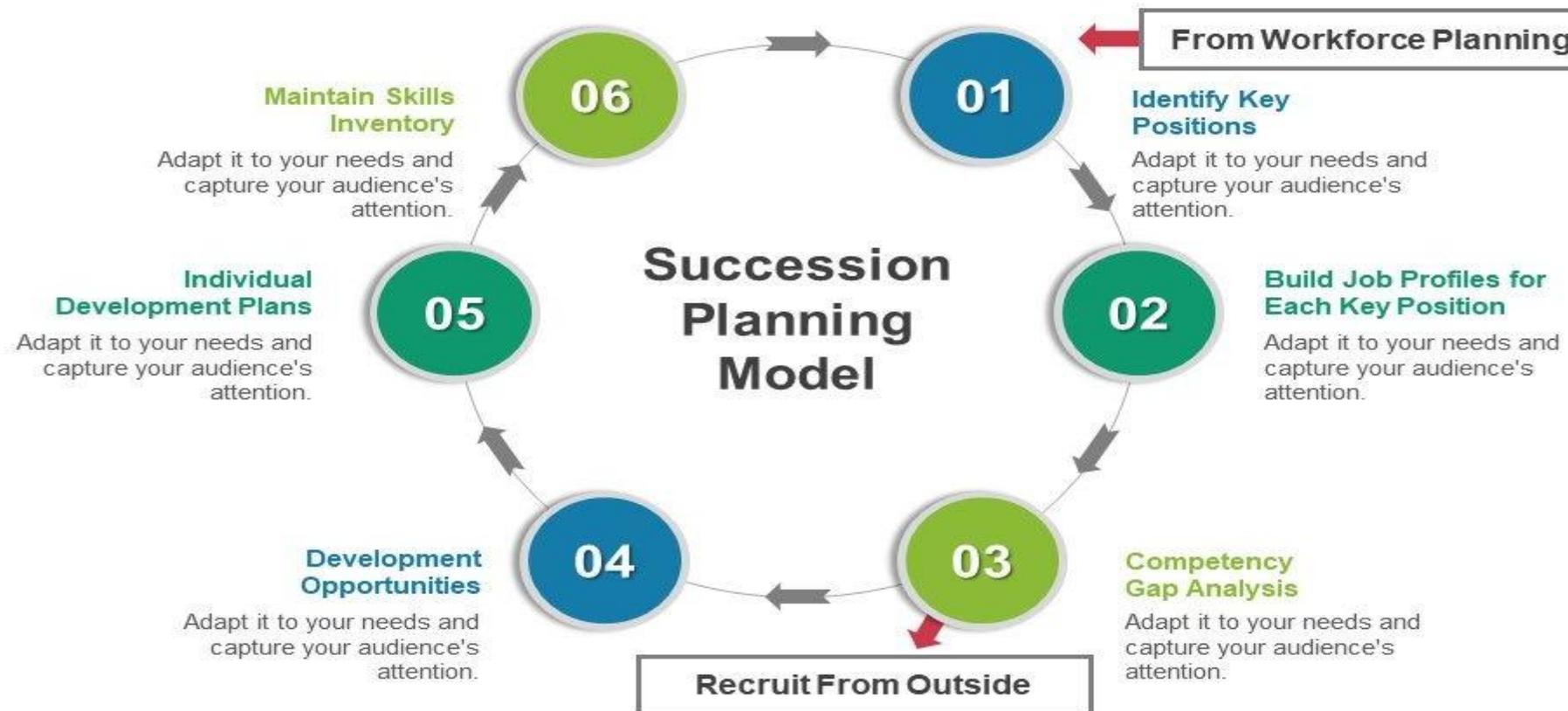
- ❖ A clear graphical view of all organizational jobs and the current number of employees at each job.
- ❖ Staffing tables are graphic representations of all organizational jobs, along with the numbers of employees currently occupying those jobs and future (monthly or yearly) employment requirements, which can be derived from demand forecasts.
- ❖ It presents a simple visual understanding of an organization's staffing level within each department and the organization as a whole, in an effort to help understand the combination of employees that make up an organization's internal workforce.
- ❖ This information is useful in evaluating staffing levels by department, branch, or project; the types of staff at each level; and the combination of staff in all categories.

Virus Cohorts	Senior Scientists	Content Advisors	Media Advisors	Omaha Public School Teachers	Omaha Public School Students
HIV & the Blood Brain Barrier	Dr. Georgette Kanmongne	Catherine Haorei	Moira Rankin	Andrea Cooney Julie Cusack	Mitch Paris
HIV Rapid Tests	Dr. Sue Swindells	Anna Walburn	Chet Kincaid	Sue Durfee Theresa Laux	Jessie Max
HIV / AIDS	Dr. Charles Wood	Deb Brown Belita Kalala	Gary Hochman Bruce Mitchell	Kris Mazur Maria Jimeno-Buckner	Danielle Garrett
Influenza Prevention	Dr. Pete Iwen Dr. Tony Sambol	John Lowe	Perry Stoner	Todd LeMense Teresa Bender	Ali
Influenza Biopreparedness	Dr. Sharon Medcalf Dr. Keith Hansen	Matt Smith	Sora Newman	Frank Tworek Lee Ann Stover	Natalia Ashia
Coxsackie Virus	Dr. Steven Tracy	Leah Carpenter	Jared Weissbrot	Marlene LaRue Melissa Hartman	Raven Diana
Herpes	Dr. Diana Florescu	Sara Brostrom	Mike Farrell	Jeff Erixon Janet Raddish	Jonathan Alex
HPV	Dr. Peter Angeletti	Willie Hughes	Adam Wagler Amy Struthers	LaDeirdre Jackson LeeAnn Vaughan	Reggie Taylor

5. Succession Planning

- ❖ Determining the internal Labour supply calls for a detailed analysis of how many people are currently in various job categories or have specific skills within the organization.
- ❖ The planner then modifies this analysis to reflect changes expected in the near future as a result of retirements, promotions, transfers, voluntary turnover, and terminations.

Succession Planning Model Template



6. Markov analysis

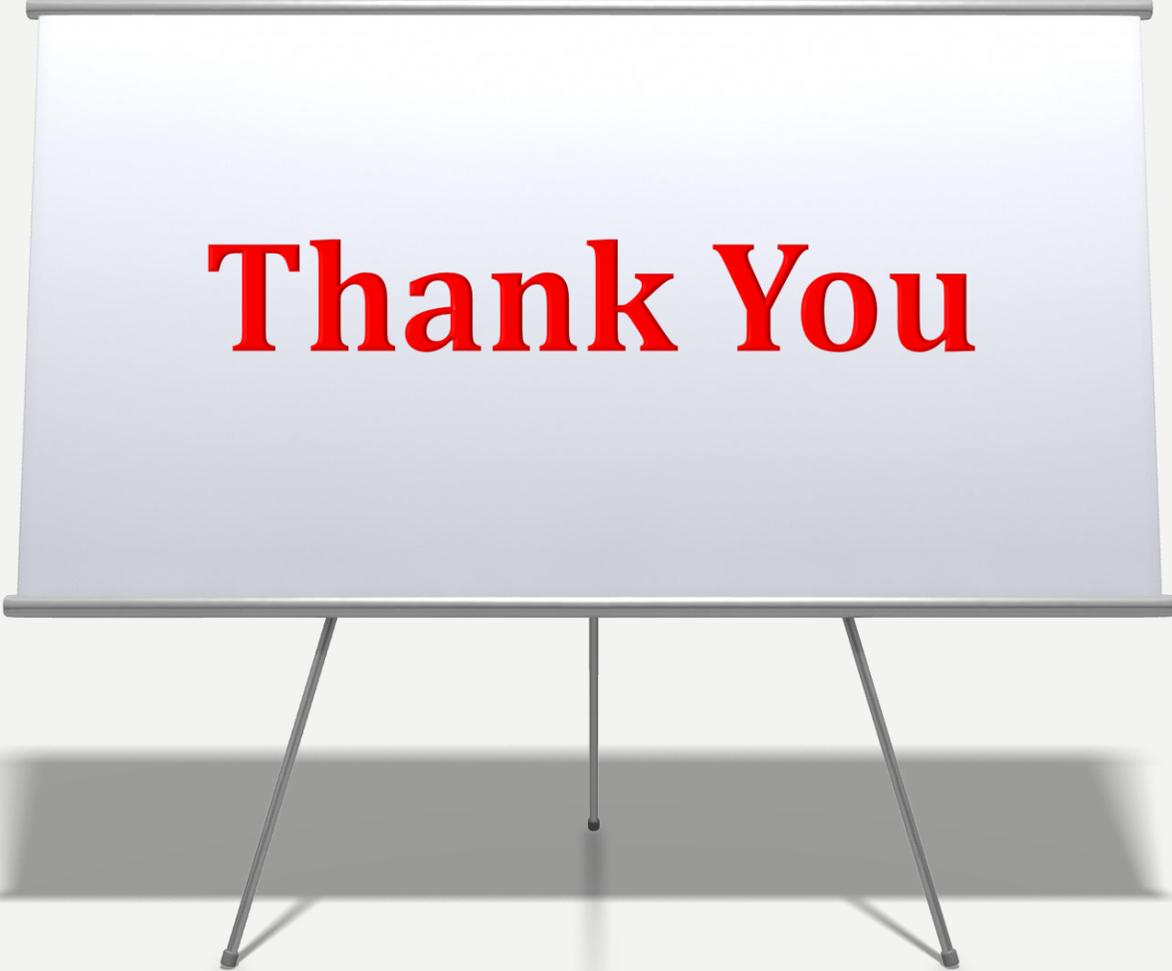
- ❖ Analysis that helps to predict internal employee movement from one year to another by identifying percentages of employees who remain in their jobs, get promoted or demoted, transfer, and exit out of the organization
- ❖ To help predict internal employee movement from one year to another by identifying percentages of employees who remain in their jobs, get promoted or demoted, transfer, and exit out of the organization.
- ❖ By tracking and predicting employment movement within an organization, the Markov analysis allows for the development of a transition matrix to forecast internal Labour supply.
- ❖ Markov Analysis is the statistical technique used in forecasting the future behavior of a variable or system whose current state or behavior does not depend on its state or behavior at any time in the past in other words, it is random.
- ❖ The technique is named after Russian mathematician **Andrei Andreyevich Markov**.
- ❖ A transition matrix, or Markov matrix, can be used to model the internal flow of human resources.
- ❖ These matrices simply show as probabilities the average rate of historical movement from one job to another.
- ❖ To determine the probabilities of job incumbents remaining in their jobs for the forecasting period.

Transition Matrix for Twelve-Month Period

	Exit	Manager	Supervisor	Line Worker
Manager	.15	.85	.00	.00
Supervisor	.10	.15	.70	.05
Line Worker	.20	.00	.15	.65

Example -

There is a 20% probability of being gone in 12 months, a 0% probability of promotion to manager, a 15% probability of promotion to supervisor, and a 65% probability of being a line worker this time next year. Such transition matrices form the bases for computer simulations of the internal flow of people through a large organization over time.



Thank You