Q2. Case study : applications of analytics in different industries -

1. Transportation →

- Data analytics can be applied to improve the transport system and the intelligence around them
- The predictive method of analytics can be used to help with transport problems like traffic and congestion.
- It can be used to plan alternative routes and reduce congestion and traffic, thus reducing the number of accidents or mishappenings.

eg. During holiday season, the transport facilities are prepared to accomodate large number of passengers travelling from one place to another using prediction tools and techniques.

2. Logistics and Delivery →

- different logistics companies like DHL, FedEx etc. use data analytics to manage their overall operations.
- Using data analytics, they can figure out the best shipping routes, approximate delivery times and can also track the real-time status of dispatched goods using GPS trackers.
- Data analytics has made online shopping easier and more demandable.

eg. When a shipment is dispatched from it's origin, it is tracked till it reaches the buyer which minimizes loss of goods.

3. Web Search or Internet Web Results →

- Web search engines like Yahoo, Bing, Google etc. has a set of data to give you when you search for data
- Whenever you hit the search button, the search engines use algorithms of data analytics to give you the best results within a limited time frame.
- The search data is considered as a key word and all the related pieces of information are presented in a sorted manner.

4. Manufacturing →

- Data analytics helps manufacturing industries maintain their overall work through certain tools like prediction analysis, regression analysis and budgeting etc.
- They can figure out the number of products to be produced by collecting and analyzing data from the demand samples.
- They increase operating capacity as well as profitability.

5. Security →

- Data analyst provides utmost security to the organization.
- Security analytics is a way to deal with online protection that focusses on examination of information to deliver proactive security efforts.

- No business can forsee security dangers, but it is best to identify danger before it gets the opportunity to affect your ~~netw~~ framework.

6. Education →

- It is mostly used in adaptive learning, adaptive content, new innovations etc.
- Data analytics applications in education are the most needed ~~dad~~ data analysts in the current scenario.

7. Healthcare →

- Applications of data analytics in healthcare can help channel enormous amounts of information in seconds to discover treatment choices or answers for various illnessed.

8. Insurance →

- A lot of data analysis takes place in insurance companies. Data such as actuarial data, claims data etc. help insurance companies realize the risk involved in insuring a person
- Analytical software can be used to identify risky claims and bring them before the authorities for further investigation.

9. Digital advertisements →

- Digital advertising has also been transformed as a result of the application of data science.
- Data analytics and data algorithms are used in a wide variety of advertising mediums including digital billboards in cities, banners on websites etc.

10. Fraud and Risk Detection →

- Detecting fraud may have been the first application of data analytics.
- It was used to examine recent spending patterns and customer profiles to determine the likelihood of default.
- It eventually resulted in reduction of fraud and risk

11. Travel →

- Data analysis applications can be used to improve a traveller's purchasing experience by analysing social media, mobile/ weblog data.
- Companies can use data on recent browse-to-buy conversion rates in order to create customized offers and packages taking into account the desires and preferences of the customer.

12. Communication, Media and Entertainment →

- When it comes to creating content for different target audiences, recommending content and ~~mes~~ measuring content performance, organizations in this industry analyse customer data and behavioural data simultaneously.

- Data analytics is used to ~~gain~~ utilize customer insights and understand their pattern of social media usage.

13. Energy and Utility →

- Many firms involved in energy management use data analysis applications in areas such as smart grid management, energy distribution, energy optimization etc.

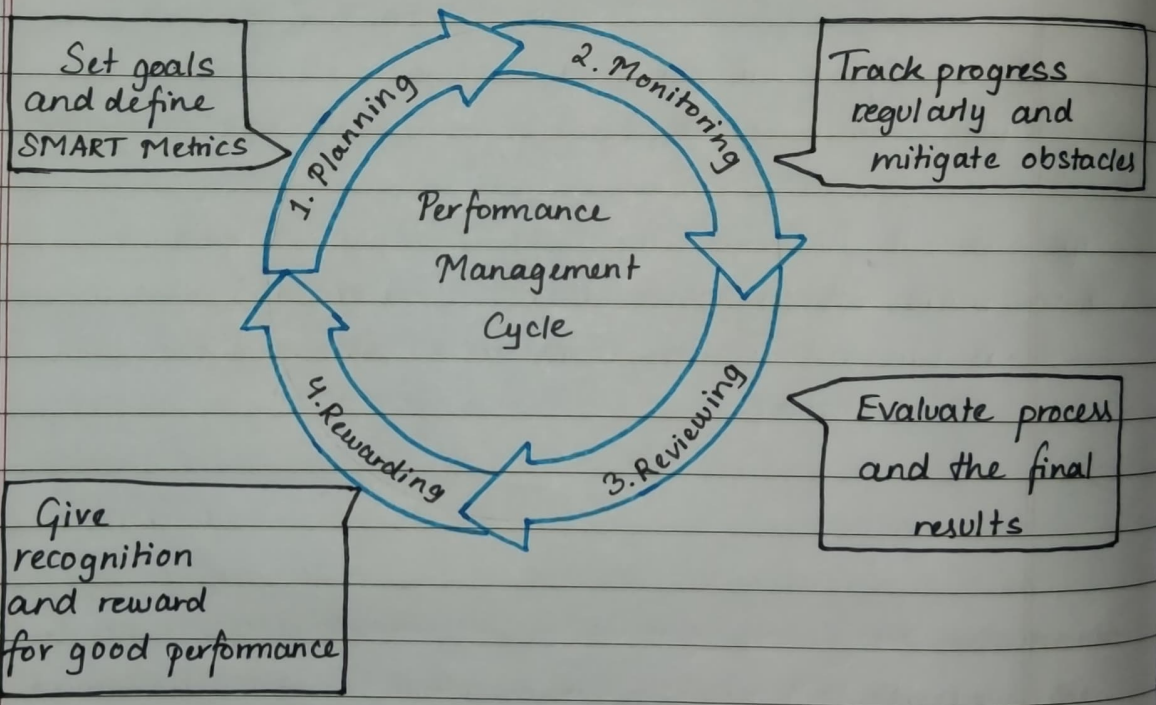
Unit - 5

Q1. Performance Management cycle

Performance Management cycle is a model that allows organizations and employees to better achieve organizational goals through a structured process of employee development.

It uses a continuous four-step procedure of planning, monitoring, reviewing and rewarding.

Benefits of utilizing this method includes increased competition and higher employee motivation.



Performance management cycle encompasses four major stages:

1. Planning
2. Monitoring
3. Reviewing
4. Rewarding

The model traditionally runs on a year-long timeline, ending with a performance-review, but ~~companies~~ various organisations have found that more frequent checkins will improve employee performance.

One of the benefits of integrating a proper performance management cycle plan is an employee who is more aligned with the organization goals, who understands both their own objectives as well as the larger objectives of the organization has a solid road map to achieve their objectives.

Stages of performance management cycle →

1. Planning -

- The groundwork for success is laid down. The management team meets to decide the organization's goals and objectives for the year
- This involves overall strategy for business as well as personal objectives for all employees and teams.
- Once the management team knows what they want the employee to achieve, it is time to meet with the employee and make a strategic plan for the year.
- This should be a collaborative process, as an employee who understands why certain goals and tasks are being set is more likely to be invested in succeeding at them.
- The goals should be clearly outlined using the SMART method

- SMART goals are → Specific
  - Measurable
  - Achievable
  - Relevant
  - Time bound

- Specific: goals must be clearly outlined with detailed information on how to achieve them and why they are important.
- Measurable: The goal must have a specific measurable indicator to tell if the goal has been achieved or not.
- Achievable: The goal should stretch the employee, but should not be so lofty that it is not realistically achievable at all.
- Relevant: The goal should be in line with the employee's job and the overall goals of the organization.
- Time bound: There should be a definite timeline as to when this goal should be completed.

2. Monitoring -

- It is a key function in achieving the goals set in the Planning stage. Monitoring will not be that effective however if it is only done once or twice a year.

- It is adviced that the management meets with the employee on a monthly or quarterly basis to check on progress, offer any help if needed, assist in solving problems that may have arisen or adjust goals if needed.

- ~~Only~~ On holding monthly or quarterly meetings with the employee management can more easily oversee this process.

- Breaking down a yearly goal into monthly ~~subtasks~~ sub goals can smooth the process and give the employee more manageable tasks.

3. Reviewing -

- At the end of the year the management and the employee meet to review the previous year and see if the goals were met.

- This is another opportunity to build a collaboration with the employee. The more involved they are in the other stages of performance management cycle, the more motivation they will have to continue working diligently to achieve their goals and those of the organization.

- The review is the chance for the employee and the management to evaluate the final result and the process itself.

4. Rewarding -

- The final stage of the performance management cycle is reward. This stage cannot be overlooked as it is most important for employee motivation.

- Employees who do not recieve a proper reward for the year after striving to achieve organisation goals and succeeding in them ~~while~~ will lose motivation for the next year. They might lose faith in the organization, feel that their talents are not being recognized and appreciated and will begin searching for another job.

- When management fairly rewards employees for their efforts, this ensures that those employees will continue to work hard to achieve organizational goals.

- These rewards must be merit based.