

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

Marketing Analytics Concepts

1. What is Product Analytics ?

It is the process of collecting and analyzing quantitative data on how users interact with a product, such as feature usage, user journey and engagement patterns to understand consumer behavior and make data driven decisions

2. What are the importance of Product Analytics ?

1. New Product Development
2. Product Improvement
3. Market Expansion

3. What are the steps in Product Analytics ?

1. Survey / Feedback
2. A/B Testing
3. Competition Analysis

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

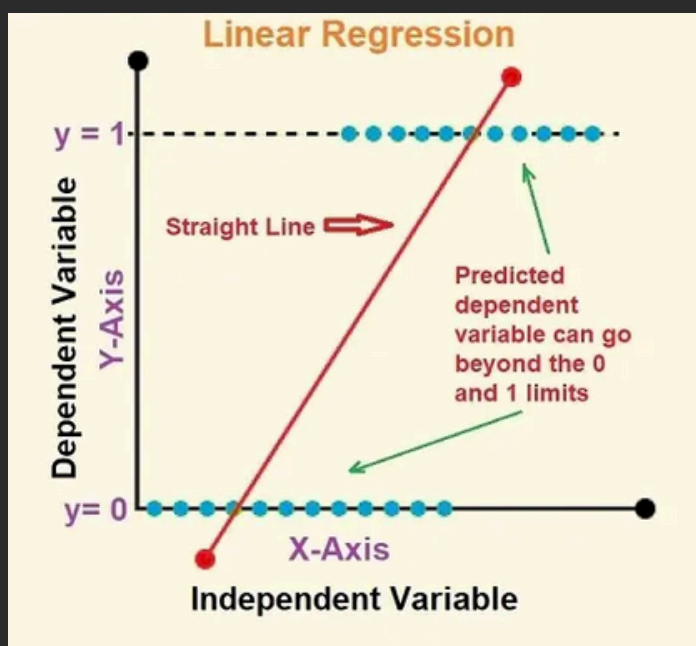
4. What are two types of Regression ?

1. Linear Regression
2. Logistic Regression

5. What is Linear Regression model ?

It is a statistical and machine learning technique that uses a straight line equation to describe the relationship between a dependent variable and one or more independent variables

6. How Linear Regression Looks like ?



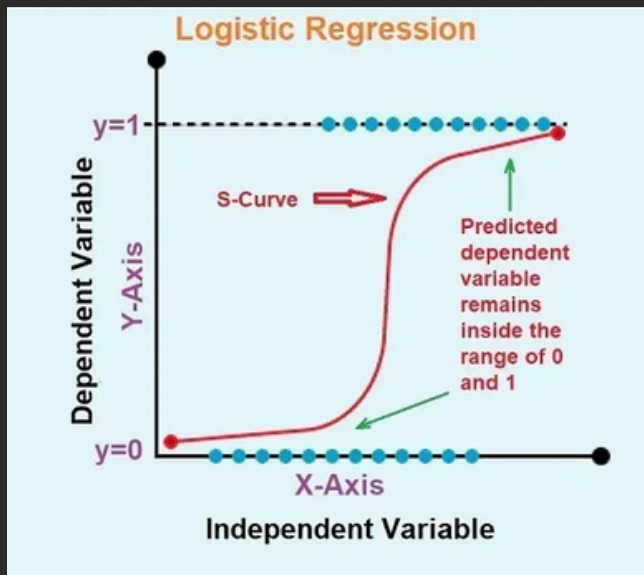
WEEK 4

NOTES BY PROF. VISHAL CHUGH

7. What is Logistic Regression Model ?

It is a statistical method used in machine learning and data analysis to predict the probability of a binary outcome (eg. Yes/No ,Pass/Fail) based on one or more independent variables

8. How Logistic Regression Looks Like ?



9. What are independent Variables ?

In a regression, the independent variable is the input, driver, or factor that you use to predict or explain changes in the dependent variable.

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

10. What is a Dependent variable ?

In a regression, the dependent variable is the outcome or result you are trying to predict or explain

11. In which scenarios we use Linear Regression ?

Used for regression problems, where the goal is to predict a continuous numerical outcome (Eg. House Prices, Temperature, Sales figures etc).

12. In which scenarios we use Logistic Regression ?

Used for classification problems, where the goal is to predict a categorical outcome, most commonly binary outcome (eg. Yes/No, True/False)

13. Application of Linear Regression in Marketing Analytics ?

It helps in Forecasting Sales, Optimizing Marketing Budgets, Predicting customer Life-Time value, analyzing impact on pricing strategies etc.

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

14. Application of Logistic Regression in Marketing Analytics ?

It helps in predicting Customer Churn, identifying potential leads, assessing the likelihood of ad clicks etc.

15. Which regression we use if the marketing question involves predicting a numerical value ?

Linear regression

16. Which regression we use if marketing question involves predicting the likelihood of a specific event or category ?

Logistic regression

17. In New Product Development, Regression is used in which Step ?

It is used in Business Analysis Step

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

18. What are the steps in New Product Development?

1. Idea Generation
2. Idea Screening
3. Concept Development & Testing
4. Marketing Strategy
5. Business Analysis
6. Product Development
7. Test Marketing
8. Commercialization

19. What is if-else condition in Python ?

if statement indicates a conditional statement that can be True or False. If the condition is True, the indented block of code immediately following the **if** statement is executed. On the other hand, **else** keyword provides an alternative block of code to be executed when condition in **if** statement evaluates to False

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

20. What is elif Statement ?

Whenever multiple conditions needs to be evaluated we use elif after the if statement

21. How to import logistic Regression Library in Python ?

```
from sklearn.linear_model import LogisticRegression
```

22. How to import the module which helps us in Training and Testing the data ?

```
from sklearn.linear_model import train_test_split
```

23. Which Score is used to measure our model Accuracy ?

Accuracy Score

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

24. In idea screening stage which parameter should be evaluated ?

While screening the idea, we need to evaluate the purchase intention of our existing and prospective customers, and also calculate the mean value of their purchase intention.

25. While testing the concept, which variables in the dataset are considered ?

We consider all the features of the product to test the concept

26. How to decide which Marketing Strategy needs to be considered ?

Comparing purchasing power with the mean of purchase intention gives the business more clarity on which marketing strategy should be implemented

27. In Classification Report, what is Precision ?

It indicates, out of all the times the model predicted positive, how many were actually correct

WEEK 4

NOTES BY
PROF. VISHAL CHUGH

28. In Classification Report, what is Recall ?

It indicates, out of all the actual positives, how many did the model correctly identify

29. In Classification Report, what is F1 Score ?

It indicates, a balance between Precision and Recall

30. While testing the market, which parameter do we consider as important ?

In Test Marketing, we consider the average expected repeat purchase rate to understand the readiness of the product to be launched in the market

31. In Commercialization, which Three conditions do we check to make a decision whether to Launch the Product or not ?

We check Average Purchase Intention Rate, Repeat purchase Rate and Average Willingness to Pay