Geography Practical

Scatter Diagrams and Correlation

Significance of Scatter Diagrams

Visual Representation:

Scatter diagrams provide a visual representation of the relationship between two variables, allowing easy identification of patterns or trends in the data.

Identification of Trends:

By plotting data points on a graph, scatter diagrams help in identifying trends such as linear, non-linear, positive, negative, or no correlation between variables.

Pattern Recognition:

They facilitate the recognition of any discernible patterns in the data distribution, such as clusters, outliers, or concentration of data points in specific regions.

hmgulearn.in

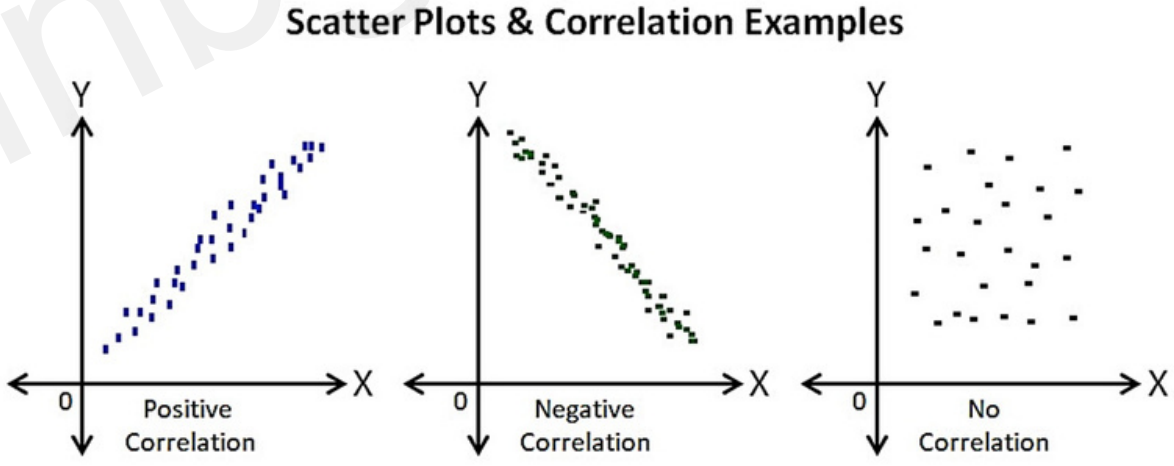
Geography Practical

Scatter Diagrams and Correlation

Correlation Assessment:

Scatter diagrams assist in assessing the strength and direction of correlation between variables.

A strong positive correlation would exhibit a trend where data points cluster closely along a diagonal line sloping upwards. Conversely, a strong negative correlation would show a downward sloping trend.

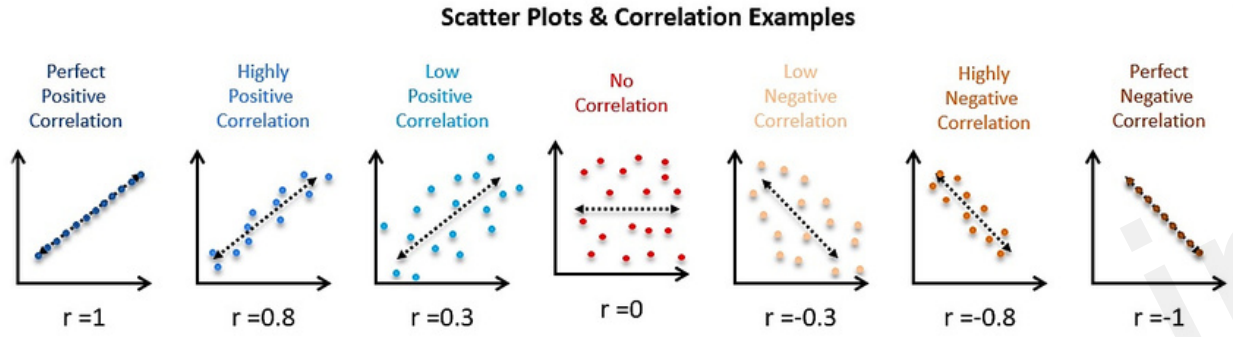


hnbgu.ac.in

Geography Practical

Scatter Diagrams and Correlation

Types of Relationships



Linear Relationship: Data points form a straight-line pattern.

Non-linear Relationship: Data points form a curved pattern.

Positive Relationship: As one variable increases, the other also increases.

Negative Relationship: As one variable increases, the other decreases.

No Relationship: Data points are scattered randomly, indicating no correlation.

hbglearn.in

Geography Practical

Scatter Diagrams and Correlation

Example Relationships:

Linear: Relationship between temperature and ice cream sales.

Non-linear: Relationship between hours of study and exam scores.

Positive: Relationship between advertising expenditure and sales revenue.

Negative: Relationship between smoking frequency and lung capacity.

No Relationship: Relationship between shoe size and intelligence quotient (IQ).

hnglearn.in