Introduction to Factor Analysis

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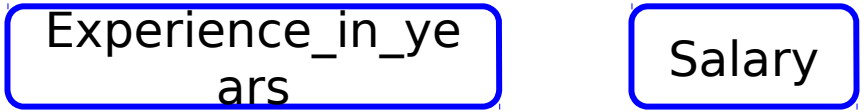

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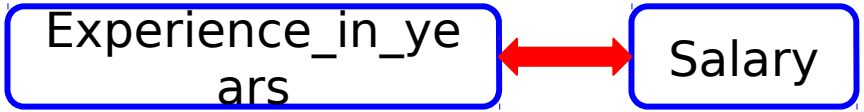

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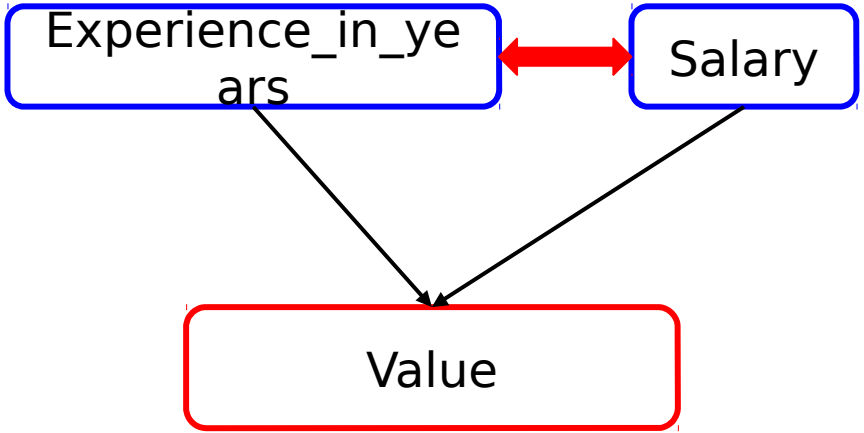

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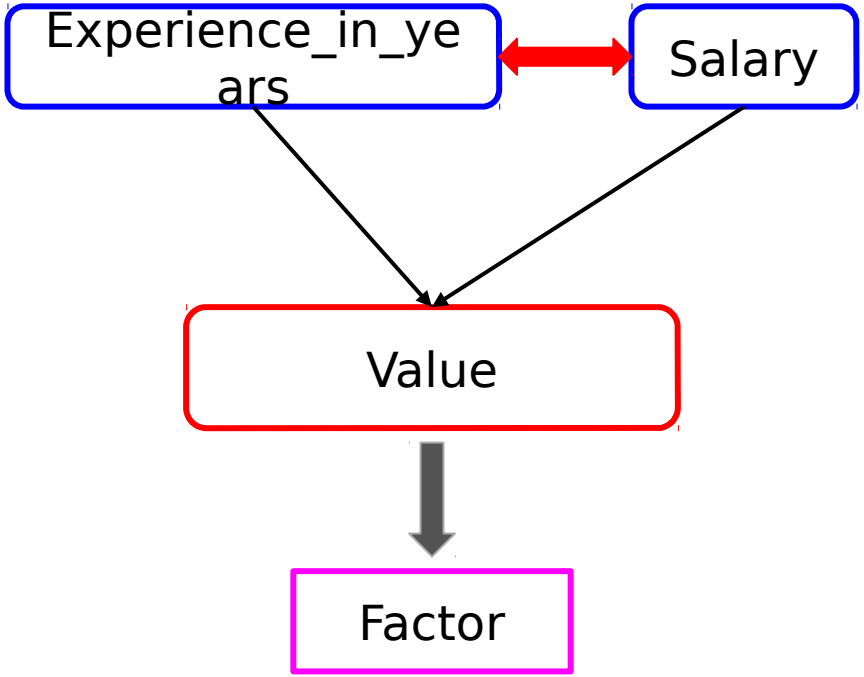

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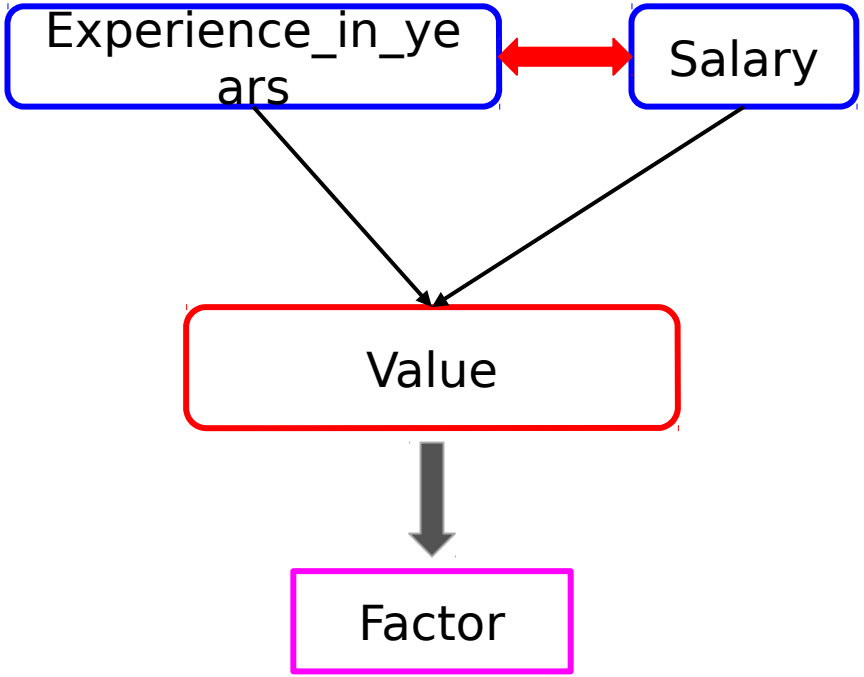

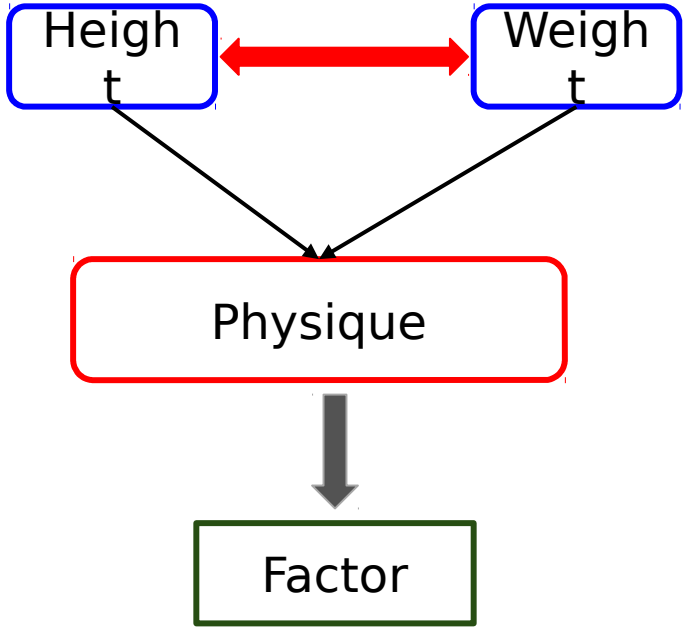

Introduction to Factor Analysis

- Factors: Linear combination of original variables

Objectives of Factor Analysis

- Reduce the number of variables
- Examine the relationship between variables
- Address the problem of multicollinearity

Assumptions of Factor Analysis

- Original variables should be normalized

- Factors are independent of each other
- There exists some underlying factors that can describe the original variables

Types of Factor Analysis

1) Exploratory Factor Analysis (EFA)
    a) Identify relationships among variables
    b) Group variables that are part of similar concept
    c) No prior assumptions about number or relationships among factors

2) Confirmatory Factor Analysis (CFA)
    a) Assumptions regarding the number of factors
    b) Test the hypothesis that variables are associated with n specific factors

Thank
You!

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