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UNIT-5

SPECIFICATION ANALYSIS

(Specification Error): The most important step of any econometric research is the correct specification of the model. The specification of a model consist of formulation of the regression equation and the assumptions concerning the variables and the random term. Therefore the specification of a model requires knowledge of economic theory as well as familiarity with the problem being studied.

Specification of a model involves three things. —

① Determination of the dependent and independent variables which will be included in the model.

② Determination of the mathematical functional form of the model. i.e, linear, non linear etc.

③ Assumptions about the data matrix X and the random term U .

④ A specification error occurs when ever the assumption relating to any of the above three specifications is incorrect. The main reason of incorrect specification of any econometric model are —

(1) The limitation of knowledge about the variables which are needed to be included in

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the model.

- (2) Non availability of the require data.
- (3) Imperfection of the economic theory which forms the basis for the specification of the model.

The most common form of specification error are ———

- (i) exclusion ^(omit) of some relevant variables from the model.
- (ii) Inclusion of some irrelevant variables in the model
- (iii) incorrect mathematical functional form of the model.