What is a Dependent Variable?*

Lekulana Kolobe

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Abstract

This module introduces a dependent variable and gives examples of such variables.

A **dependent variable** is a variable dependent on another variable: the independent variable. In simple terms, the independent variable is said to cause an apparent change in, or simply affect, the **dependent variable** [Wikipedia2006D[1]].

Example 1

1. In a study of how different dosages of a drug are related to the severity of symptoms of a disease, a measure of the severity of the symptoms of the disease is a dependent variable and the administration of the drug in specified doses is the independent variable. [Wikipedia2006D[2]]
2. In a call centre, the number of customers serviced per hour, depends on the number of agents, and average service time per customer. In this case number of customers is a dependent variable, entirely dependent on the other two independent variables namely agents, and average service time.

Exercise 1 ***(Solution on p. 2.)***

What is the dependent variable in the following function? Briefly explain your choice.

Y = 3X + Z - 5

References:

- Wikipedia2006D. "**Dependent Variable**," http://en.wikipedia.org/wiki/Dependent_variable[3] , Last Accessed on 20 February 2006
- Author of Assignment 3: Lekulana Kolobe
- Author of Assignment 1: Arnold Mwesigye

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[1] http://en.wikipedia.org/wiki/Dependent_variable

[2] http://en.wikipedia.org/wiki/Dependent_variable

[3] http://en.wikipedia.org/wiki/Dependent_variable

Solutions to Exercises in this Module

Solution to Exercise (p. 1)

The dependent variable is Y. This is because the value of Y depends on both the values of X and Z changing.