SPSS Statistical System Program

Optics Techniques Department / Second Stage

Teacher

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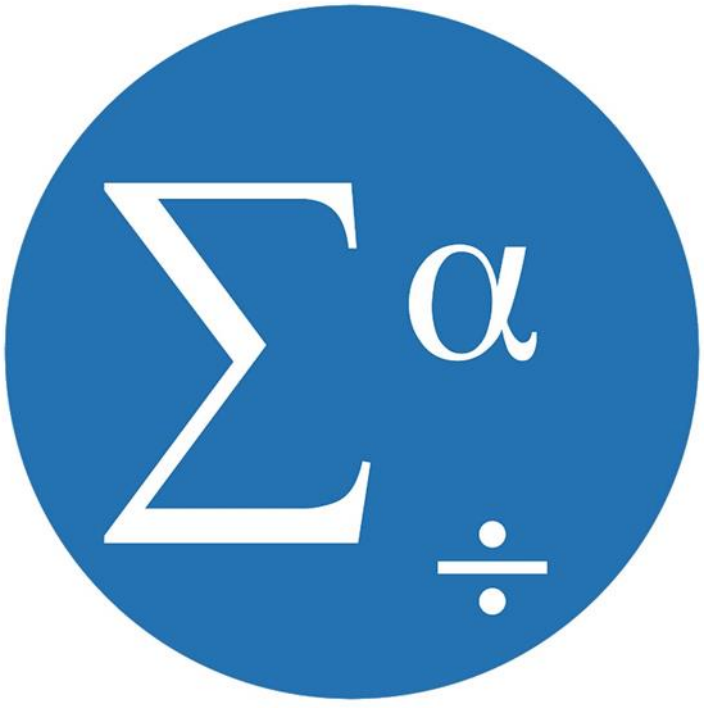


1. Definition of the statistical system spss

Abbreviation (Statistical Package for Social Sciences) is one of the statistical applications that operate under the umbrella of Windows. It is a set of lists and tools through which the data obtained by the scientific researcher through questionnaires, interviews or observations can be entered, and then analyzed (statistical analysis). The statistical system SPSS relies on digital information The program is distinguished by its great ability to process the data provided to it and can be used in all scientific research methods.

1. The importance of the SPSS program

The statistical analysis program (SPSS) is one of the most important programs used in statistical analysis, especially since it is a number of comprehensive packages that can carry out the data analysis process. It is worth noting that this program is used in research that contains calculations, numbers, and statistical and numerical data, as the statistical analysis program (SPSS) can read all data. With various files and thus analyzes them in order to produce the results as well as the statistical report for them. The statistical analysis program.

(SPSS) allows the user to enter data, and modify the data in the form of variables, especially new data using equations. In addition, the statistical analysis program (SPSS) allows the user to save data of various types in specific files and thus name them, and there is no doubt that it allows the user to modify the names that he has placed in the data file. The best thing about the statistical analysis program (SPSS) is that it allows the user to retrieve data, files and observations. The user of the statistical analysis program (SPSS) can do the above by controlling a list of commands and options available in the program.

Where it includes all stages related to data analysis by the user of the (SPSS) program in four steps :

1. Data coding
2. Placing the data in the program
3. Selecting the appropriate scale to test and analyze the data
4. Determining the variable data to be analyzed And implement the statistical process.

2. SPSS Features

1. Very easy to use and dealing and suitable for all levels of users.
2. Analysis can be performed using menus without the need to write commands.
3. It can handle all most all types of files.
4. It excels in descriptive statistics, regression analysis and variance analysis.
5. Due to its great global importance, the principles of statistical analysis are taught in most universities.

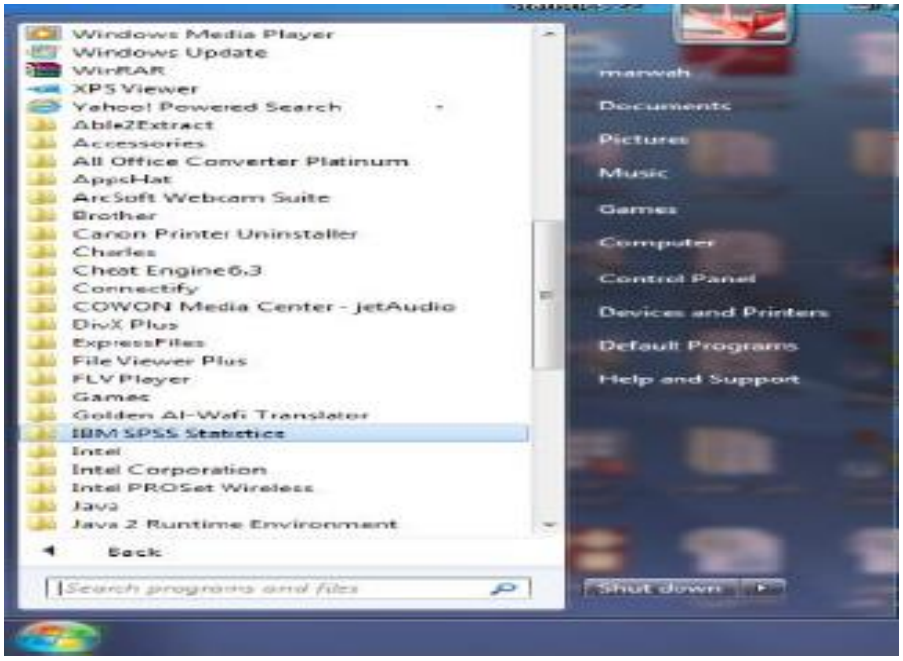
3. Disadvantages of SPSS

1. Focuses on statistical methods used primarily in social sciences
2. Its results may change when the order of entering variables is changed, and the correctness of the solution cannot be verified except by experimenting again, by entering the variables in a different order and comparing the results. This usually happens with (Logistic Analysis)
3. It cannot deal with files Very big data

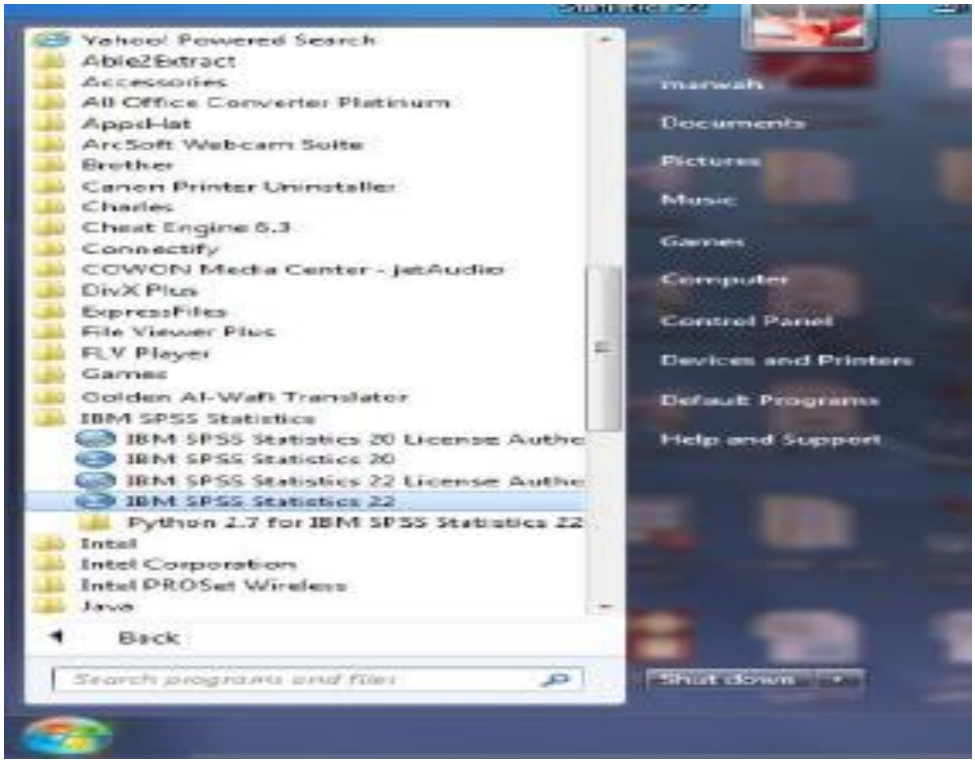
4. Running SPSS

1. Open the Start ⟶menu
2. From the All Programs menu ⟶IBM SPSS Statistics

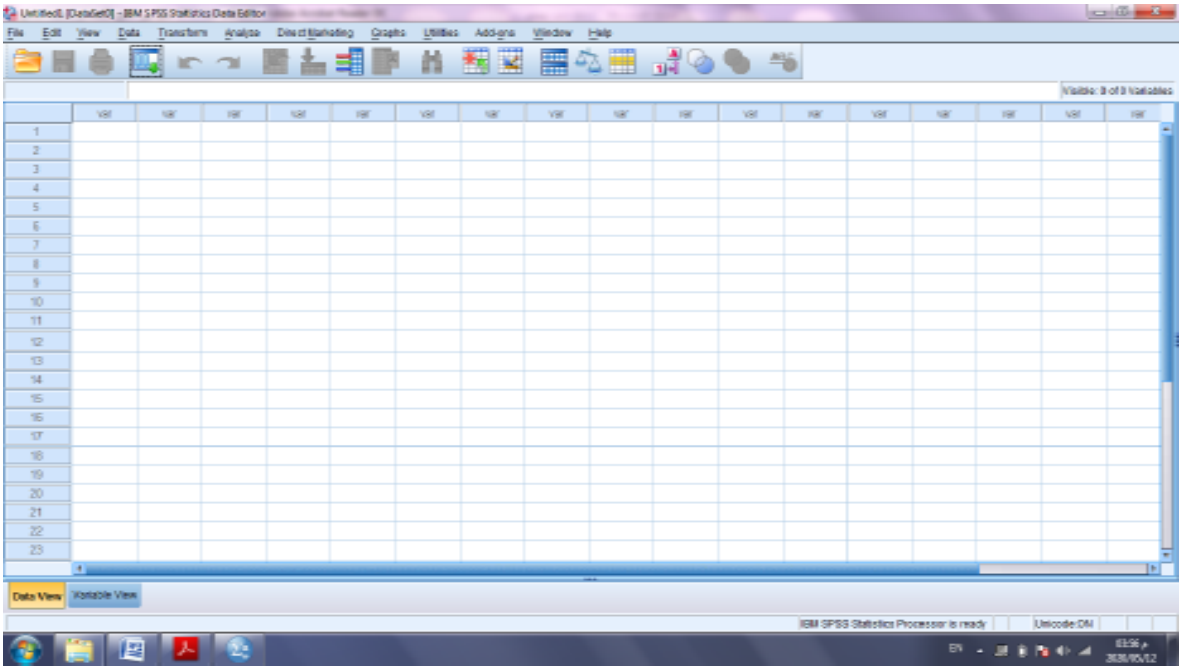
as shown below: -



Then we choose **IBM SPSS Statistics** as shown in the figure below:



The main window of the program will appear as shown in the figure below:



5. SPSS components

1. Command Functions

It is the command bar (menu bar) of this program, and through it the user of the program can choose the command he wants in order to help him in the statistical analysis, and that is when the user of the program clicks on the required icon in the program. The command bar or list includes a number of main menus, which when clicked on, branches out. It includes several sub-commands other than the Help menu.

2. Data View

It is an environment in which the user controls the addition or deletion of data related to each variable, where the user deposits any independent variable in a column on the data screen. The user can also transform the display and view the variables by clicking and moving between the two commands View data and Variable View located at the bottom left of the variables screen.

3. Variables screen

Variable data definition screen, which contains parallel columns, where each column contains the data for each variable. To view the definition of each variable, the user double-clicks the mouse button or can click on the command (View Variable) located at the bottom left of the variables screen.

4. **List of reports and statistical analysis results**

It is a display screen through which all results and reports are displayed, and it also allows the user to navigate between the data screen and the results screen.