

Application of SPSS Programme in the Field of Social Science Research



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Abstract: *SPSS is a combined package of software which is a set of statistical package for the social science research. The primary application of this program is to explore the technical data which have relevance with social science. These data can be utilised for survey research, market analyzation etc. The benefits of the package area unit its relative simple use, its familiarity to several applied math consultants and its practicality. Statistics is that the body of mathematical techniques or processes for gathering, describing, organizing and decoding numerical information. With the use of SPSS, the researcher can properly analyse the activities and views of people in a analytical method. Presently, various educational institution, medical Sciences institutions, academicians, import-export organizations etc have been using SPSS for fulfilling different objectives. The researcher can easily understand the demand for a product in the market with the help of statistical analyzation which can change their strategy. Primarily, SPSS is a useful package which is designed in such a way to handle the large quantum of variables within a short period of time by using different technical commands to produce a set of suitable outputs. All forms of statistical analysis can be easily taken up in the full package software which can convert the quantitative data into qualitative analysis. The primary purpose of this proposed work is to explore the utilization and significance of SPSS in the field of social science.*

Keyword: *analysis, data, Social Science, SPSS, Statistical*

I. INTRODUCTION

SPSS is a useful software program which is basically used by the social science researcher to explore the critical data by some simple methods. The task of data analyzation is a very complicated and time consuming process, but with the help of SPSS it can be easily handled and operated by using various technical method. These technical methods are utilised for the easy analyzation and transformation of data which are very helpful for the researcher to explain the features of different variables. Hence, the output result can be formulated through the representation of graphs and diagrams so that a user can easily understand the outcome of it.

In the present day context various computer softwares have been able to play a crucial role in the field of social science research. In today's world, it has turn out to be an obligatory means of research.

To analyse the complicated activities of common people and society, SPSS is the most fruitful software which help the social scientist to upgrade their research work. "It is a full package software program which can provide a simple solution for the researcher to explore the complex statistical data in a descriptive method through the presentation of data in numerical forms such as scatter plots, pie diagrams, histograms etc." (Bala, Jyoti, 2016).

Various data which are collected by the researcher from the field survey, interview method, experimentation and observation can be properly explained with the use of this applied software in a quantitative and analytical way. This software can easily convert huge datas in to brief analisation which help the social science researchers to develop their research into an organised manner.

II. PROPOSED METHODOLOGY

The present study is completely based on both descriptive and analytical method which has been adopted through various experimental work and secondary data. Various articles, available books and different seminar papers have been collected as their secondary source to develop this study.

The primary data of this study are basically dependent on various experimental works and observation which are collected after the use of the SPSS software in multiple purpose of research. In the secondary data the characteristics such as reliability of data, suitability of data and adequacy of data have been considered.

III. SPSS: AS A QUANTITATIVE TOOL

SPSS is software which is widely used for quantitative research method specially to develop the explanation of social science research in to an analytical way. The SPSS Corporation initially created the SPSS software system package in the early 1980's and has recently discharged version eleven. It is presently one among the foremost usually used applied math packages in Australian analysis establishments and is obtainable in any respect of Australian universities. The benefits of the package area unit its relative simple use, its familiarity to several applied math consultants and its practicality. The package is developed for variety of in operation systems together with Windows and UNIX operating system. Data concerning SPSS product is obtainable on-line at web.SPSS.com.

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IV. DISCUSSION

SPSS can perform various statistical analysis by using its various tools in the activities of social science research. The process of data analysis is a very critical and time consuming process but this can be simply managed with the help of several techniques of SPSS. It can ensure the working of data to be clear and hassle free without errors. Different techniques of SPSS can easily transform various datas into small analytical figures by using various simple coding formulae, through which the output can be obtained in the form of graphical representation.

A. SPSS: As a tool for scientific analysis in the field of social science:

The verification of hypothesis assumption is an important task of Social science research to test the gathered data and resources. But it is very complex to explore the massive amount of data within a short period of time. Hence the social science researcher can use the SPSS package to analyse the gathered data in an organised manner. Presently, various educational institution, medical Sciences institutions, academicians, import-export organizations etc have been using SPSS for fulfilling different objectives. 'To run the SPSS program some realistic understanding and training about this software is much essential for the user in the field of social science research. Some technical knowledge is required to formulate commands to the system such as recoding, computing variable view and merging of files etc. Hence, there are several statistical tools for the analyzation of data in an efficient manner under the SPSS program.' (Bala, Jyoti, 2016).

SPSS software arranges the data by using computerized programming which not only minimises the burden of analyzation of large quantum of data but also reduces technical error. However, a minimum understanding of this software is obligatory for researcher to use it. SPSS package also contains a 'tutorial file' which makes this software a user friendly for the researcher.

B. Quantification of Variables:

Quantification of variable is an important step for analysing the data through measurement. Measurement is the application of rules in assigning numbers to cases so as to represent the presence or absence of quantity of an attribute possessed by each case.

Table 1: Types of Variable

Variables	Explanation	Examples
Independent variables	This is required to bring a transformation in a phenomenon	Educational attainment of Journalist
Dependent variables	It is dependent on the result of the transformation which is brought by the independent variables	Ethical behavior, knowledge of code of Ethics
Intervening variable	This can be measured through an interval but cannot be manipulated. It can show the gap between	Newsroom policies

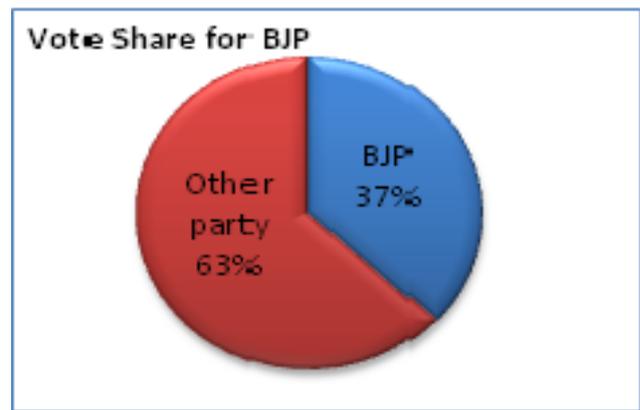
	one and another.	
Moderator variable	This variable may not be influenced but it has an impact on the research which is always going on in a continuous flow.	Age group, term of work experience etc

C. Application of SPSS in analysing the impact of Social media for the victory of BJP in 2019 Lok Sabha election:

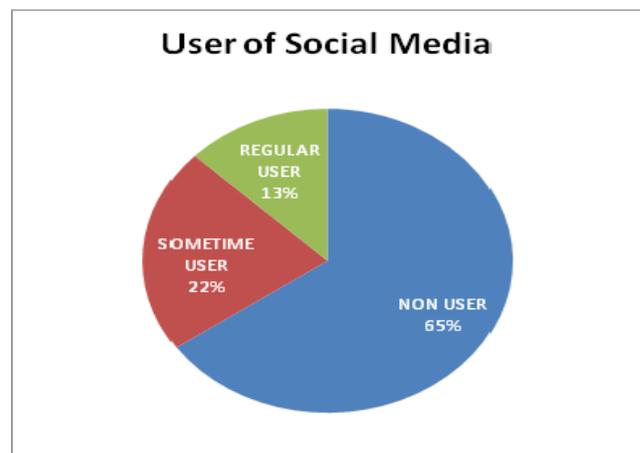
SPSS as a tool for quantitative research is a very useful package in the field of election studies for the Psephologist. In the field of social science research, the Center for the studies of Developing Social science (CSDS), Lokniti, widely applied this SPSS package for the election studies. They have used this software to find out various human behaviour and activities in numerical terms which is proved to be helpful for election analysis.

The impact of the use of different social media upon the victory of BJP in 2019 Lok Sabha election can be studied and analysed by using SPSS programme.

The Vote share for BJP and other parties in 2019 Lok Sabha Election and the user of the social media can be presented in the following pie diagrams:



In this diagram the vote share for BJP is found to be 37% and other party is 63%.

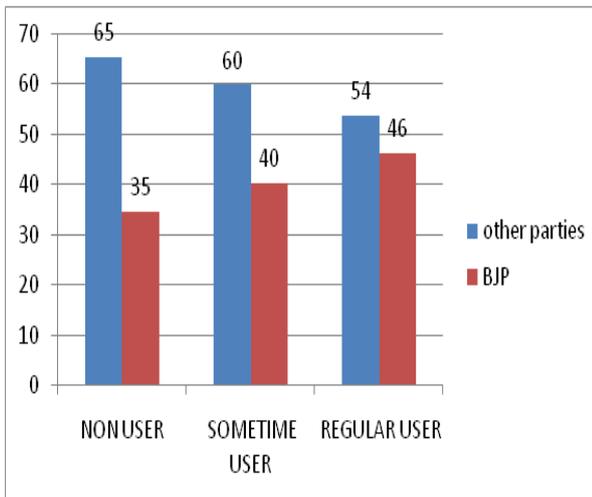


This diagram proved that the regular user of social media is 13% and sometime user of social media is 22% and 65% people have never used social media.



Through the following graph the comparison between the vote share for BJP in 2019 Lok Sabha election and various type of social media users can be properly understood.

Graph 1: Percentage distribution of vote share for BJP in 2019 by various type of social media users.



This graph has presented that with the increase in the use of social media, the voting share in favour of BJP is rising in which non user is 35%, sometime user is 40% and regular user is 46% and it indicate that as the degree of social media users increases, the vote share for BJP also increases. On the contrary the vote share for other parties decreases from 65% to 60%, then to 54%. So, here we can trace a gradual increase of vote share in favour of BJP in 2019 Lok Sabha election as the using of social media gradually increases.

V. RESULT ANALYSIS

SPSS programme is an extensively used software for statistical analyzation of data in social science research. The SPSS is a potential tool which is able to give an outstanding performance in the field of social science research. SPSS provides proper analysis of the data and the procedure of data entry can be easily done within a short span of time. Through this software various types of data can be properly analysed in a short period of time. SPSS also has a student pack version which encloses the usual graphic analysis to the advanced multifaceted analysis. ‘The proprietary 4GL command syntax language is an another part for the utilization of this software.’ (Bala, Jyoti, 2016). The complex information can be simplified with the use of this command syntax language. This language command has many shortcuts like *copy*, *paste* etc button which can execute the research work very fast. As such analyzation of huge data file can be completed within a few seconds.

The applied math Package for the Social Sciences (SPSS) could be a wide used all-purpose survey analysis package, and therefore it is a helpful one to master. It is necessary to permit some learning time to become at home with this package, and annual license fees may be a rational motive. A minimum basic knowledge on statistics or mathematics is required to run this software. It has been found that various disciplines of social science research is fully dependent to execute their collected data in numerical

forms. We can quote the example of election studies in this regard.

SPSS is a purely quantitative data analyzation program which provide various facilities to convert people’s action and views to an analytical form. In the field of social science research, by using questionnaire method the researcher can collect the response of people in numbers and by the use of various formulae of SPSS the researcher can easily show the result in tabular form, pie diagram, bar diagram and in graphical representation etc.

SPSS also has the provision to export the result analysis (output) into different file formats like word file, excel sheet, pdf etc. Also the graphical outputs can be converted and saved into JPG, PNG, BMP etc file format that can be later used in different application softwares and this makes the SPSS a very user friendly software. This paper aims to provide practical guidelines that could assist Social Sciences researchers choose the best statistical software to conduct effective statistical testing for their research.

SPSS is not only the analysis of the data but also an output regulation for clear measurement. The SPSS ‘student pack’ includes a wide selection of analytical functions, from basic descriptive statistics to advanced general linear modelling capabilities. Specific functions are enclosed to permit the transformation of variables as preparation for various tests.

VI. CONCLUSION

SPSS is a very useful software in the field of social science research as the researcher can smoothly execute large quantities of data in a simplified process.

It is a mathematical and statistical purposive software which can easily represent the collected data in a analytical way within a short period of time which is very helpful for the user. The analyzation of collected data cannot be executed manually. Hence with the emergence of several data analysis programme like SPSS, various critical tasks of social science research have become simplified.

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Priyanka Gogoi, is a Ph.D Research Scholar of Gauhati University, Department of Political Science, Assam, India. Her areas of interest on research include Information and communication Technology, Gender studies, public policy, public administration and ethnic studies etc. She had completed a workshop on SPSS

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