

# Chapter 1

## Evolving Verifiable Causal Mechanisms through Governometrics to Study Critical Policy Issues

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### **ABSTRACT**

*This chapter addresses the elemental aspect of statistical application, which is of paramount importance in evolving testable causal mechanisms to study the critical policy issues. The Governometrics that help us in unfolding the complexities of policy making and governance can be applied both at the primitive and advanced levels of application of quantitative and qualitative methods. This chapter only touches the primitive level application. It is a normative analysis to help the policy analysts in understanding issues that can have cascading impact in society due to failure in identifying right policy priorities. Three techniques, QCA, PCA, and SPSS (IBM), include many other techniques that can be tested statistically to resolve the difficult policy conundrums. These techniques have relevance to the governmental arena as important tools for policy research. The discussion is built up on the basis of need to study any administrative and policy issue by identifying the provable causal relationships. Both the qualitative and quantitative methods have inherent significance; hence, the scientific analysis to understand the basics of policy dynamics is of profound value.*

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## **INTRODUCTION**

The suffix science in policy science clearly explains the significance of conducting policy research which examines phenomena qualitatively and quantitatively especially if it relates to critical issues. The policy research is at the highest pinnacle in the knowledge based society that manifests the outcome of governmental decisions methodically. It is therefore, research and development that are seen as the inherent aspects of knowledge, growth, employment and policy cohesion are equally important dimensions of governance. However many researchers approach the application of scientific methods in governance with the apprehension deeply conditioned against the application of quantitative research methods in particular as it involves Statistics and statistics means mathematics and mathematics is often unpalatable to social researchers. In 1959, Snow gave his famous Rede lecture at Cambridge University about 'Two Cultures' where he has suggested that Western society had been divided in to two poles, scientific and non-scientific, (Snow, 1959; 1964). This still seems to be a tenable point of view as even today researches seems to be divided on soft and hard issues i.e. skill requirements in mathematics and language are mutually exclusive therefore need opposite credentials. Epstein writes about the fear of mathematics and statistics to conclude that these fears are connected to the anti-research attitudes of social researchers (Epstein, 1997) and it also applies to policy making as it is an important dimension of social dynamics. Similarly Onwuegbuzie has also opined that researchers often have anxiety about statistics, moreover a detail reference has been made to different kinds of anxieties such as statistics anxiety, research process anxiety, composition anxiety and library anxiety (Onwuegbuzie, 1997; 2000). Taking a similar line of advocacy Zeidner characterizes statistical anxiety by extensive worry, intensive thoughts, mental disorganization, tension and psychological stimulation that arise in people when exposed to statistical contents, problems, instructional situation or evaluative contexts (Zeidner, 1997). In the era of information and technology the demand of using information based on Research and Statistical Analysis is growing. So for those policy researchers who look upon themselves as math- phobic or have math anxiety it is essential to imbibe research skills as Cerrito emphasized that statistics is not a luxury any more, but a necessity (Cerrito, 1999). The apprehension which is not without fear, may relate to some latent reasons that might influence the researchers' viewpoints and experiences about quantitative research. Therefore the paradigmatic division of policy sciences into quantitative and qualitative research is allied to researchers' orientation toward research activity. A good research is essential to understand the challenging and critical issues that emerge as the result of growing socio-economic complexities of society and policy displacement. This kind of apprehension has also affected the policy designs where the need for precise governmental decisions is prerequisite to

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