

빅데이터를 위한 정책결정 설계

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Modeling of Policy Making for Big Data

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● 요약 ●

Data, by itself, will not reveal the optimal policy choice. Nor will data alone tell us what problems to focus on or how to direct resources. It should be recognized upfront that data-driven policy making cannot provide all the answers to the challenges of good governance. Policy decisions always depend on a combination of facts, analysis, judgment, and values. In this paper, we research on factors to design an organizational policy making for Big Data.

키워드: Big Data; Policy Making; Modeling

I. Introduction

Historically, decision making in these areas has been heavily influenced by factors other than empirical evidence, including personal experience or observation, instinct, hype, and dogma or belief. Advances in information technology have brought about a revolution in decision making from sports to business to policing. The ability to collect and analyze large amounts of data, however, allows decision makers to cut through these potential distortions to discover what really works. Indeed, those who have made the best use of data have consistently outperformed their more data-challenged peers. By harnessing new technology and investing in data collection and analysis, decision makers can position themselves to spot problems faster, identify and test a range of policy options, learn from collective experience, target limited resources, and quickly refine and tailor policy interventions. The challenge is seizing this opportunity.

II. Elements of Data-Driven Decision Making

At its most fundamental level, data-driven government requires quantitative measurement of both problems and policy responses to inform decision making. To get to this point, however, a number of steps are required. Decision makers must define the problems they wish to address, invest in data collection and statistical analysis- harnessing information technologies- and publicly share data and conclusions. To promote effective policy solutions, these data should be used to measure progress on quantitative goals, compare performance among peer groups and guide policy refinements and everyday management decisions. These elements of data-driven policy making are discussed further followings; Problem Definition, Data Gathering, Data Integration, Problem Assessment, Publication of Data & Results, Setting of Quantitative Goals, Determination of Policy Priorities, Development of Policy Solutions, Feedback Loops & Policy Refinement, Benchmarking & Comparative Review, Managing by Numbers, and Training.

III. Data-Driven Decision Making

Data-driven decision making provides a way to systematically check assumptions, spotlight problems, clarify choices, prioritize resources, target interventions, and identify successful policy solutions. It brings insights and rationality to bear in the policy process. This approach offers the promise of more effective and efficient government. It also provides new mechanisms for holding public officials accountable for policy results, and a way to challenge entrenched interests invested in maintaining the status quo. Revolutionary advances in information technologies provide the ability to quickly and cheaply collect, aggregate, analyze and disseminate enormous volumes of data. These technologies, if fully utilized and applied to serve policy making objectives, can bring problems and policy solutions into focus as never before. With a clearer and more fine-grained understanding of issues, underlying causes, and policy options, decision making can become more targeted, tailored, responsive, and innovative- maximizing limited public resources and dramatically improving government effectiveness. As we move to deploy new technologies, there needs to be accompanying changes in the policy making process, so that decision makers are positioned to capitalize on the information generated. Too often, the various components of data-driven decision making- data gathering, analysis, dissemination, performance measurement, priority setting, and policy development- are pursued almost as separate enterprises, with little thought given to how they connect to and support each other. These elements must be brought together into a coherent whole to fulfill the vision of data-driven decision making and achieve the full set of synergies available. As we break down these barriers, however,

we will begin to reap the benefits of a government that is more effective, efficient, open, accountable, and guided by evidence, not ideology or special-interest influence.

IV. Conclusions

We provide a starting point for thinking about data-driven decision making as a new approach to governing. It describes the major elements that need to be implemented at the federal level, explains the potential advantages of this approach, and points out possible downsides that must be overcome. We give particular attention to education, health care and the environment for illustrative purposes. However, data-driven decision making can be applied to meet the full range of challenges facing the country, from homeland security to food safety to energy alternatives to financial fraud. At its heart, this proposal is about building an effective, efficient government that is responsive to the needs of its people.

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