

## **Mixed Scanning Approach to Budgetary Decision Making: A Review**

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### **Abstract**

The aim of this paper is to discuss the mixed scanning approach to decision making in relation to other two approaches, rational and incremental. The mixed scanning approach attempts to take the best of both worlds by employing a combination of both approaches. This method attempts to compensate for the limitations of each approach by using a combination of the two. This approach seeks to weed out any potential issues by looking at implementation of company strategy over a long period of time, followed by a further and more thorough inspection of any incremental change that warrants it. This enables problem solvers to operate within a structured and comprehensive framework. Moreover, this paper shows the application of this approach to budget decision making by three UK local authorities.

**Keywords:** Mixed Scanning Approach, Budgetary Decision-making, United Kingdom

### **Introduction**

Etzioni (1967) introduced the notion of mixed scanning which he says reduces the unrealistic aspects of rationalism by limiting the details required in fundamental decisions and helps to overcome the conservatism of incrementalism by exploring longer term alternatives. The scanning process involves how one goes about examining a problem with respect to the amount of information gathered, how much strategies being adapted to their institutional setting, they must also be adapted to the particular type of complex problem under study. This adaption implies that decision strategies must be multifaceted, value based, and comprehensive, something incrementalism does not exhibit.

### **The Rational Decision-Making Process**

In the framework of the rational approach, decision-makers assume that there is a set of options, acts or courses of action displayed before them in a particular situation. They associate a set of possible outcomes or consequences with the set of possible acts, and finally, they have a preference ordering over the consequences. This allows them to rank the consequences and

select that option which ranks highest in their payoff function. This approach makes several important assumptions, including perfect information available to decision-makers, the existence of resources necessary for societal utility comparison of different proposals, cognitive capabilities of decision-makers adequate enough to utilize perfect information, and lack of time constraints. Rational decision making assumes that decision makers have:

1. A well-defined problem;
2. A full array of options to consider;
3. Full baseline information;
4. Full information about the consequences of every option;
5. Full information about the values and preferences of people, and
6. Fully adequate time, skill, and resources.

### **Zero Based Budgeting**

Zero based budgeting is a budget-planning procedure for the re-evaluation of an organization's program and expenditure. It requires managers to justify the entire budget request in detail and places the burden of proof on the managers to justify why authorization to spend any money at all should be granted. It requires that old programs compete on an equal footing with new programs. Priorities are established each year, and changes in the budget necessitate a realignment of resources in accordance with changing priorities. The following steps compose the basic elements of zero base budgeting:

1. Establish goals and objectives. The zero-base process involves all levels of management starting at the top. Top management must initiate the preparation of budgets by providing guidance as to the goals and objectives of the organization. This initial top-down communication is crucial to the rational budgetary process.
2. Identify decision units. The decision unit has to be defined for each organization so that it can be isolated for analysis and decision making. It is important to note that decision units are literally units of activities that can be analyzed and in which discretionary decisions can be made.
3. Development of decision package. The development of the decision package is crucial to the zero base process. These decision packages serve as the blocks of the process. They provide a description and evaluation of each decision unit subjected to management review.
4. Rank the decision packages. The ranking established priorities among the functions described in the packages. All levels of the management ultimately become involved in the ranking process.
5. Allocate funds accordingly. Since the decision packages are ranked in order of priority, top management can allocate funds to the highest priority packages until the limit in spending is reached.

### **Incremental Decision Making**

Incrementalism is defined as a method for simplifying decisional problems by restricting options to a few which deviate marginally from precedent, then selecting that option which can command a consensus among decision makers. Incrementalism is somewhat less purely empirical than the scientific method. The future is a large unknown and incrementalism merely

recognizes this fact of life. Incrementalism helps to ensure control by comparing alternatives policy choices with existing reality. If a mistake is made in the choice of a particular policy, a return to some specific point can be made. This point is the base from which the choice was made. Incremental policy choices will not cause sudden or drastic changes which may disrupt organizational structure and established processes.

### **The Characteristics of Incremental Budgeting**

1. Political. Budgeting is a political process. An allocation cannot be made rationally on the basis of the public interest.
2. Complexity. It is the most serious problem in policy-making. Decision-making has to simplify to go on at all.
3. Budget Base. Many activities in previous and current years are either mandatory or fundamental to the purpose of meeting organizational goals. In consequence, it is necessary to concentrate only on the changes from the previous or current year in setting up the budget.
4. Roles. Spending departments act as “advocate” and argue for better service and more expenditure in their area of responsibility, while the treasury department act as “Guardians” and its task is to ensure that available resources are not exceeded.
5. Stability. Incremental budgeting pays little attention to any environmental influences. It argues that the previous year’s budget appropriation is the most influential factor for this year’s budget outcome.

### **The Mixed Scanning Model**

The mixed scanning model, as outlined by Etzioni (1967, 1986), synthesizes the rationalistic and incremental approach by combining the high order, fundamental policy making processes which considered as long term scanning, and incremental processes which is related to fundamental decisions which can be considered as short term scanning. The scanning process provides a strategy for evaluation and flexibility to scan different level of situations makes it useful tool for decision making in different levels of environmental stability.

Etzioni (1968, 1986) presents an outline of the mixed scanning strategy as follows:

#### **A. On strategic occasions**

1. List all relevant alternatives that come to mind
2. Examine briefly the alternatives and reject those that reveal a “crippling objections”. These include:
  - a. Utilitarian objection to alternatives which require means that are not available.
  - b. Normative objections to alternatives which violate the basic values of the decision-makers.
  - c. Political objections to alternatives which violate the basic values or interests of other actors whose support seems essential for making the decision or/and implementing it.
3. For all alternatives not rejected under number two, repeat the second step in greater but not full details.

4. For those alternatives remaining, repeat in fuller detail, continue until only one alternative is left.

**B. Before Implementation.**

1. When possible, fragment the implementation into several sequential steps (an administrative rule).
2. When possible, divide the commitment to implement into several serial steps (a political rule).
3. When possible, divide the commitment of assets into several serial steps and maintain a strategic reserve (a utilitarian rule)
4. Arrange implementation in such a way that, if possible, costly and less reversible decisions will appear later in the process than those which are more reversible and less costly.
5. Provide a time schedule for the additional collection and processing of information, so that information will become available at the key turning points of the subsequent decisions.

**C. Review While Implementing.**

1. Scan on a semi-encompassing level after sub-set of increments is implemented. If they work continue to scan on level over longer periods of time and in full over-all review still less frequency.
2. In the case that a series of increments does lead to financial problems, or only exacerbates the problem it was meant to address, it becomes incumbent on upper management to conduct a more thorough and comprehensive scan of the increments taken.
3. One is reminded to scan for any potential or underlying issues at every change or decision taken even if any “alarm bells” don’t ring.

**D. Formulate a rule for the allocation of assets and time among the various levels of scanning.**

1. It is crucial to assign “slices” of the available pie to normal routines (when incrementing “works” )
2. Semi-encompassing reviews
3. Over-all reviews;
4. Initial reviews whenever a new problem or strategy is considered;
5. A time “trigger” at set intervals, to initiate more encompassing reviews as a preventative measure to stop a crisis before it develops;
6. An occasional review of the allocation rule in the over-all review, and the establishment of the patterns of allocation in the initial strategic review.

**Three British Local Authorities**

A decision problem may be uncertain for many reasons (Taylor, 1984). There may be insufficient knowledge of the events in the decision environment that will influence the decision outcomes and the causal relationships that exist among the aspects of the decision

problem. Or some elements of the decision problem and its environment may be beyond the decision-maker's control. Moreover, decisions are made in organizational environments that are highly unstable due to the introduction of new technology, rapidly changing markets, or a host of other uncertain features.

There are three major sources of uncertainty in organizations:

1. Environment – changing and complex environment engender uncertainty.
2. Task – simple, routine tasks produce low levels of uncertainty, where complex tasks that are not routine create high levels of uncertainty.
3. Task interdependencies –the greater the interdependencies among tasks, the greater the uncertainty.

Aldrich (1979) outlined six dimensions on which environments change:

1. The abundance or paucity of resources available to an organization within an environment.
2. The differentiation between those environmental elements with which an organization interacts.
3. The turnover in environment elements.
4. The degree to which resources are evenly distributed throughout or are concentrated in particular locations in an environment.
5. The extent to which an organization's claim to a specific domain is accepted by other organizations.
6. The causal interconnectedness between environmental elements.

Scanning the problem environment is a key step in any investigative process. Kiesler and Sproull (1982) differentiate two types of scanning: automatic and directed search. In directed search, individuals have intentions or objectives, exert effort, follow learned patterns, improve with practice, and deteriorate under high stress. In automatic scanning, individuals continuously receive and encode certain aspects of situations to which their attention is directed.

Etzioni (1967) mentions three factors which aid in the selection of the appropriate scanning levels:

1. The capacities of the participants in the problem solving process.
2. The nature of the environment.
3. The power distribution within an organization which affect the first two factors.

Ibrahim and Proctor (1992) tested the use of incremental budgeting on three local authorities: Staffordshire, Derbyshire, and Shropshire from 1979 to 1989. The data tested using four models: The magnitude of change, the stability model, the appropriation model and Dye mode. They found that the budget is incremental in nature.

In this research our main purpose is to show how these local authorities scanned their environment and of course take these factors into their consideration when they set up their budget. The statements below clearly state both types of environments, internal and external. Moreover, these authorities have stated three types of environments.

**State Uncertainty of Environment:** One types of uncertainty which organizational administrators can experience is uncertainty about the state of the environment. Inflation remained the major financial problem. The expenditure reduction was heavily outweighed by the effects of pay and price increases (Shropshire County Council, Policy Committee report, 1980-81, 1981-82). In preparing the budget for 1982-83, Derbyshire and local authorities in general were faced with depressing prospects (Derbyshire County Council, policy Committee Report, 1982-83). Despite the continuing complexities and illogicalities of local government finance, every effort had been made to produce a concise and intelligible analysis of the county council's budget position and one which concentrated on the major policy area (Staffordshire County Council, Policy Committee Report, 1987-88).

**Effect Uncertainty of the Environment:** This type of uncertainty about the environment is related to an individual's ability to predict what the impact of environment events or changes will be on his or her organization. Precise details of where the reduction in the expenditure will fall have not been settled at this stage. It is felt that the consideration of where economies should be made is even more critical than the consideration in past years of where growth should be allowed (Derbyshire County Council, Policy Committee Report, 1980-81). Having made substantial cuts in expenditure over the last few years, the task had become more difficult and demanding as it is still a duty to provide services for those who need it (Staffordshire County Council, Policy Committee report, 1983-84). There are too many uncertainties at this stage to give detailed attention to the Revenue Budget situation in 1985-86. This was especially so at a time when major Government legislation affecting local government's manpower and its financial framework was being enacted and when expenditure control rules changed from year to year (Shropshire County Council, Policy Committee Report, 1984-85)

**Response to Environmental Uncertainty:** Response uncertainty is defined as a lack of knowledge of response options and/or in ability to predict the likely consequences. Response uncertainty stems from difficulties in evaluating alternatives courses of action. The careful evaluation of alternatives is inhibited by uncertainty about future conditions that will influence an alternative, making it more or less favorable, and the relative importance of the means used to compare alternatives (Nutt, 1989). Given the uncertainty of the grant position in 1988-89 and the political uncertainty arising from the election, it is extremely difficult to make any firm recommendations on the level of net growth that the county council should be contemplating for the year (Staffordshire County Council, Report of County Treasurer, 1988-89). Forecasting next year's expenditure in undoubtedly the most difficult in living memory. There are major uncertainties in the new features of comparability awards and the annual pay settlements (Derbyshire County Council, Policy Committee Report, 1980-81). There was every indication that the most optimistic interpretation of Government policy for future local government spending was that it should not exceed a real-terms standstill (Shropshire County Council, Policy Committee report, 1985-86).

### **Conclusion**

A third approach to decision making is called “mixed-scanning”. This approach recognizes that daily business is probably conducted by making short-term incremental decision, but proposes that the organization occasionally step back and review main alternative so that “obvious” dangers such as inflation or unemployment, or with more fundamental issues, such as the basic social order, can be removed and different lines of approach explored. Incremental decisions for the organization would then be made within the context set by the fundamental decisions established through more comprehensive method. Like rationalism, this approach assumes that organizations should have the capacity to evaluate the results of different decision-making strategies and decide which is more effective and efficient. As a result, an organization needs to have the capacity to implement such approach by modifying the accounting system, budgetary process and strategy setting to make an effective decision. On the other hand, this article has shown that the three English local authorities had scanned the both internal and external environments, and presumably made their decision by selecting the appropriate alternative. This can be seen by reviewing the environment each year, selecting the appropriate procedures to manage the important issues, and then make a decision within incremental context.

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