

# [Introduction qualitative analysis, though there is much more](https://assignbuster.com/introduction-qualitative-analysis-though-there-is-much-more/)

## Introduction

This research examines the relationship between capital budgeting in the UAE public sector and how the government spends on various national capital projects. Presently, the effects of capital budgeting on the state remain largely unanswered. However, the literature on public sector spending in the United Arab Emirates includes a number of case studies and qualitative analysis, though there is much more empirical work that explains the effects of government capital budgeting and spending. Hush & Peroff (1988) noted that federal governments varied significantly in their capital budgeting process and also in spending in various capital projects, thus providing a natural laboratory for examining how government budgetary practices related to various policy outcomes.

This paper examines and studies the different capital budgeting practices. Moreover, it analyzes various effects as explained by quantitative literature on the various practices. Also, it analyzes the level of government spending on capital projects through comparing both the capital and operating budgets. However, government’s capital expenditures may vary from time to time because of contingencies or political factors such as re-election campaigns.

In addition to using panel data, the study also uses Poterba’s model that allows exploration of environmental effect on state spending. This model categorizes the variables based on the definition of government capital spending, projects selection, cost estimation techniques, capital planning processes and capital financing practices (Poterba 1995).

## Objectives of the study

The general objectives of this study are to: Provide a theoretical overview of a public budget. Answer questions regarding public sector capital budgeting process. Represent the different causes of budget variance making recommendations of the corrective steps that should be considered.

### Decision making styles

Public budgeting is referred as a management tool, fiscal tool, instrument of accountability or a planning tool for the government (Tisdell 1975). The main purpose of this part is to have a general discussion of decision making styles in UAE public budgetary making process.

These styles can be broadly categorized into four groups. First is the rational decision making approach that is an advanced version of the traditional management approach. The second approach is the public management approach which takes a decentralised decision making formula that largely depends on the market criteria to promote a degree of laizesfaire. Thirdly is the political approach that bears a pluralistic style of decision making and largely relies on incremental decision making. Last is the legal approach that assesses the legality of decisions. Although these approaches are related and applicable to decision making process, this study will mainly discuss two major approaches which are the incremental and rational approaches.

## Rationality and program budgets

### Rationality approach to policy making

Rationality style can be defined as a systematic process used to convert policy makers’ thoughts, assumptions and objectives to policies that guides in achievement of the targeted aims (Schick 1973). Rationality model consists of two interrelated models; bounded or comprehensive model and unbounded rationality model. The two varies as a result of extent of rationality, range of options considered and information required for decision making.

Comprehensive rationality model requires consideration of all policy options and also information completeness whereas bounded rationality needs only limited information. In government setting, rationality becomes practical if the involved decision makers and the stakeholders agree on values, nature of the problem and the solution to such problem with total avoidance of engaging in politics and conflict of interest (Rubin 1990).

### Rational budgets

A rational budget heavily relies on the concept of bounded rationality and satisfaction. If applied to budgetary decision making process, the decision maker first identifies the goals of the department in measurable terms. The policy maker continues by stipulating, scrutinizing and evaluating the available programs to achieve the identified goals. In this approach, the decision makers has to assess the implications of each program and finally choose the best out of the many alternatives to satisfy the intent of economy, efficiency and effectiveness. This model of rationality develops gradually into more advanced comprehensive planning programming budgeting systems (PPBS).

The changes commences with performance budgets which brings together computations of a number of work stations completed and then divides into man hours used or each activity cost. PPBS carefully differentiates the goals in each government department, carries out an analysis of output of a given program in terms of total programming costs and objectives for a couple of years forming programs to be pursued in the long term. Another form of budgetary model used in the UAE public sector is the Zero based budgeting which indeed represents non- incremental budgetary decisions. This model of budgeting is based on the existing budget to give an estimation of the following year budget by requiring the decision makers to commence the annual estimations from level zero and give a concrete justification for whole year’s budgetary allocation.

### Incremental budgets

Incremental budgetary model is referred to a budgetary decision making process based on the marginal changes from the previous year’s estimates to the following year’s estimates. In this model, there are two variables taken to be helpful in simplification of the decision making procedure. They include budgetary role and aid to computations.

To start with, budgetary role refers to the behaviours of the central budgetary authorities and the various government ministries. Government ministries tend to increase their budgets far beyond the previous base whereas the budget central agency tries to cut ministries requests and reduce them to sensible amounts. In this case, UAE budget is incremental as facilitated by two major factors which include structure of the government and the budget time span. In the first case, the informal and the formal structures makes the system of government too complex and pluralistic. The informal structure of government has an elaborate structure of patron-client relationships.

This situation puts a lot of pressure on UAE federal government budget especially in employment and services. The second factor relates to time span of fiscal year in UAE which commences in January. Annual federal budget preparation commences in April giving the budget preparation officials only eight months to prepare the whole federal budget. Therefore in most cases the budget always fall behind schedule forcing the government to vote for one month appropriation to finance its services as the ministries struggle with endorsement and budget preparation.

In such a case, the idea of line budget simplifies the process of computing the annual expenditure estimates thus promoting the tendency towards instrumentalism. Annual allocation estimations are based on uniform expenditures, line item format which is compulsory for all government agencies and ministries.

## Research Design

Public budgeting became so popular in UAE due to ever soaring foreign debt and increasing public expenditure. Nonetheless, administratively, budgetary decision making styles are still an issue under hot debate. For this purpose, this study focuses on the question relating to budget decision making styles used by UAE federal budget officials.

Since this study pays attention to UAE federal as a whole, its analytical efforts results to final decision making for publishing in the official state gazette

## Literature Review

The most recent studies carried out by researchers tend to address the relationship between the capital budgeting process and the resultant outcomes using quantitative analytical tools. However, these tools do not address capital spending but they have developed a framework for this research. Holtz- Eakin and Tilley (1994) provided a theoretical foundation for the empirical studies.

They further tested permanent income hypothesis for UAE local and state governments. When applied in the UAE, the spending patterns reflected long term resources which were available to the state. Surprisingly, they rejected the permanent income hypothesis based on the fact that local spending was determined by current factors rather than long term resources.

Crain and Miller (1990) examined the relationship between state legislative capital budget and state economic growth rate and learnt that line item budget format and other legistrative rules affected capital spending rates. Further, they established that current services budget increased state spending on capital projects. On a similar front, Crain and Oakley (1995) examined the effects of political and procedural factors. For instance, biennial budget cycle stated bond rating and capital budget on government capital stock. In addition, they found that unlimited gubernatorial terms reduced the value of government stock.

As a result of this, it is considered that bond rating was positively related to public capital stocks. In another related study, Alt and Lowly (1994) examined the relationship between government spending and a number of variables as reflected on the government structure. They established that various kinds of federal government units had varying plans regarding their capital expenditure.

Bohn and Inman (1996) investigated the deficits which were caused by state constitutional limitations, such as balanced budgets and debt restrictions. The researchers found out that when balanced budget was applied to general fund balance, it had an impact of reducing deficits. Further, they learnt that long-term restrictions discouraged both the public debt and capital spending.

Clingermayer and Wood (1995) as well as Kiewert and Szakaly (1996) analyzed how capital budget structure was influenced by the political instruments. The rationale which is identified here is that when the project benefits extend to the future, the beneficiaries should also participate in repayment of such benefits. Thus, it became justifiable to borrow funds to finance capital budgets as the future beneficiaries can participate in these debt repayments. Currently, the taxpayers tend to be unwilling to pay for capital projects whose benefits extend in the long-run as most of the capital projects involving the state are financed through long term debt (Holtz-Eakin 1988).

By using time series data, Clingermayer and Wood (1995) examined the patterns of state indebtedness using in financing long- lasting infrastructural projects. In their research work, the duo found that expenditure, tax and debt limitations changed state debt growth significantly. In conclusion, they lamented that the UAE government was not prone to the so-called ‘ debt culture’. Studies which were carried out by Kiewiert and Szakaly (1996) examined the effects brought forward by constitutional limitations on state debt.

## Research Methodology

This research uses regression models to analyze data. A number of regression models are used to analyze the different styles of budgetary decision making.

The models used in this study include descriptive statistical models such as basic regression model, measures of central tendency and use of percentages. In discussion of these models, this study borrows heavily from the Poterba’s study in which the researcher uses a number of research models.

### Data analysis and hypothesis testing

This part describes the sample data by using the percentages to establish annual changes in federal budgetary allocations. Annual percentage changes in budgetary allocations are established for individual ministries. The percentages changes are calculated using a Microsoft excel according to the equation below. Yt= Yo+Yt+1 Where; Yo= Budgetary increment Yt= the current budget Yt+1= the previous budget The above formula is used in budgetary computations. It goes further to show the variable for incremental trend of individual ministries budget and in total the federal budget.

However, as the national income estimates increases, the total expenditures also seem to rise. From the above equation, the presence of an incremental variable depicts incremental budgetary allocations in all traditional ministries. However, this is attributed to the sizable ministry of defense budget which in most cases in not disclosed in the annual national budget document as it is considered highly confidential. From the look of the interior ministry budgetary allocation, a regular incremental decision making pattern is evident. This trend is also seen in other ministries budgetary allocation though they only differ in incremental rates. The highest movers are Electricity and water ministry, higher education and oil and energy budgets.

This tremendous increase is associated with the government emphasis on tertiary education which it has given priority over the others. However the reduction of expenditure on Electricity and water ministries, Oil and energy is attributed to privatization and re organization of a number of state corporations falling in these ministries.

## Hypothesis testing

### Magnitude model

Null hypothesis (Ho): UAE federal budget follows an incremental trend Alternative Hypothesis (Ho): In deciding the annual incremental expenditures, the UAE federal ministries adopt incremental style. In testing the two hypotheses, the annual percentage changes are arranged in line with the operational definitions of highly incremental, moderate and non- incremental categories. The UAE budgetary decisions between 1991- 2005 all fell between +-10% ranges. Thus, under this model, the first hypothesis is accepted.

### Stability model

From the previous descriptive analysis, the magnitude model suggests the presence of an incremental trend in UAE budget decision making process. Nonetheless, the question which remains unanswered is the extent to which it is possible to generalize whether such results represent the whole population of the study and to justify the stability of the incremental style and the purpose for which the study uses the stability model to test the stability level of budgetary results. However, in this model, instrumentalism is defined as, “ the degree of stability in the patterns of budgetary outputs overtime” (Schick 1973, p. 12). The detection of the incremental pattern in the budget data may lead to substantiating the decision making process by ensuring adherence to budgetary outputs.

To confirm the stability of the UAE’s budgetary output, then the budgetary output patterns for both ministerial and the overall has to be in line with the incremental pattern. Increase in the number of the detected magnitude deviations that the budgetary process uses causes a decline in incremental style of decision making. The stability model is dependent on general allocation levels other than incremental change or any other decision rule used in the budgetary process. A budget with perfectly incremental style of decision making gives similar annual allocations on the regression model thus showing all allocations being compatible with output mean pattern. In testing the stability of UAE incremental decision making, the study used coefficient of determination (r2) which determines the statistical fitness of the data on the regression model. Notably, it shows the extent to which the independent variable explains the changes in the dependent variable.

Therefore, high and low percentage value of R2 shows the high/ low levels of stability respectively

## Results & Discussion

The significant variables that determine the level of capital spending are presented on the table below. Surprisingly, all the exploratory variables retain their signs in all the outcomes of the models though the magnitude is not similar due to the addition of some other changes. In the table below, reported results are estimated at 5% significance level. VariablesStandardized ? T-statisticSignificance levelConstant-2. 0220. 045Capital budget0. 1162. 1570. 032Regional Indicator: West0. 1161. 9300. 055Regional Indicator: North-East0. 16-4. 780. 000Regional Indicator: South-0. 3752. 0310. 044Annual Indicator: 19930. 146-3. 0910. 002Annual Indicator: 1994-0. 203-4. 9360. 000Annual Indicator: 1995-0. 3410. 1950. 846Home-owners as fraction of total households0. 0112. 7830. 006Percent of population living in metropolitan area0. 145-7. 8280. 000Population density-0. 6136. 7670. 000Population share > 650. 1842. 6270. 009Population share <180. 1371. 7150. 088Net migration0. 1812. 3480. 02Intergovernmental revenue0. 4146. 0370. 000Per-capita income0. 5226. 4170. 000Adjusted R-square0. 596