

RESOURCE ALLOCATION PROCESSES - AN INTERPRETATIVE FRAMEWORK

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INTRODUCTION

Past studies addressing issues in resource allocation exhibited the influence of two major schools of thought. The first is the conflict school which viewed organizations as coalitions of individuals with differing interests (March, 1962). Motivation to interact amongst individuals is presumed to be asymmetrical whereby one party is motivated to interact, but the other is not. Hence, the more powerful party, the better able it would be able to force or induce the other to interact (Schmidt and Kochan, 1977). This implies that there are two main parties in budgets and budgeting, with one having greater power and hence being able to dominate the other.

There are two models that are commonly used in the resource allocation research in educational establishments – anarchical and political. The first was based on the work of Cohen et al. (1972) who viewed universities as organized anarchies. Decision making in organizations is not seen as purposive because of the plurality of values. Academics enjoy a high degree of autonomy and have powerful allegiances and strong

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professional identities outside their own institutions (*Moodie and Eustance, 1974*). Consequently, events and outcomes cannot be determined simply by observing individual's decisions because *they are intended by no one and are not related in a direct way to anyone's desired outcome* (March and Olsen, 1976, p.19). Hence, organizational processes can be described as anarchy rather than order while the processes of management are more akin to experimentation and confusion rather than to planned actions (Copper et. al., 1981). Allocation decisions are considered problematic because of several factors, such as: a) organizational goals are ambiguous (because preferences differ, are inconsistent, and are ill-defined); b) effects of technology and structure are uncertain (because organizational processes are not well understood by members); and c) participation are fluid (because decision making often operates on the basis of trial and error) (*Hardy, 1990*).

The second is the political model. It originated from the works of March (1962) and Cyert and March (1963). The model views an organization as a coalition with conflicting interest among participants, it focuses on power and quasi-resolution of conflicts. Authority, in this model is seen to be derived from personal power rather than from the resolution of conflicting interests (often through a process of negotiation and compromise). Consequently, the manner in which decisions are arrived at, such as in the allocation of resources, will be influenced by the power that an individual has in a particular decision context. Hence, decisions become problematical because power becomes an important decision variable for achieving the organizational objective rather than economic optimality.

The second school of thought is the cooperative or exchange school. According to this school, organizational members will interact when they perceive that such interactions will lead to mutual benefits or gains. They are motivated to form a relationship because of their dependence on each other. Implicit

in this approach is that decisions can best be made and problems can best be solved through cooperation (as opposed to bargaining). Also, within this school, some researchers regarded budgets and budgeting to be a neutral phenomena, products of rational decisions to ensure that efficiency in the distribution of scarce resources is maximized. Most researchers discussed them in technical terms (e.g. *Stedry, 1960; Schiff and Lewin, 1970; Ronen and Livingstone, 1975*). However, later studies which addressed this issue in universities (e.g. *Boland and Pondy, 1983; Bourn and Ezzamel, 1987; Hardy, 1988*), viewed the process of budgeting in a wider social context.

Research following this school of thought adopted two main models -- bureaucracy and collegial. The Bureaucratic model was developed on the Weberian concept of bureaucracy (*Weber 1952*).

In skeleton form, bureaucracy is a type of organizational arrangement characterized by a well-defined framework, a recognizable chain of command, and governance based on predetermined regulations and procedures. The structure is hierarchical and is tied together by formal systems of communication. Authority is usually conferred from above and organizational actors occupy and perform specified roles.

The use of the collegial model in the examination of resource allocation processes in universities can be traced to arguments that a university is a community of scholars (*Goodman, 1962*), that decisions are a matter of consensus (*Millet, 1962*), and that professional authority is normally based on competence rather than position (*Baldrige, 1971*). As such, the collegial model developed form a strong sense of collegiality in which scholars are called upon to respect each others' intellectual dependence regardless of age or position (*Becher, 1984*). It stresses the interpersonal context and the making of decisions through the processes of democratic consultation rather than by recourse to formal authority. In other words, authority, in this tradition, is

always subject to ratification from below. Members enjoy equal rights in policy-making, decisions may be exposed to possible dissent and individuals enjoy a high level of discretion to conduct their affairs in their own way, subject only to minimal constraints.

However, a university has a unique setting. In developing a political model to describe the resource allocation processes in an educational establishment, Baldrige (1971) found that many internal forces are on the move to change the shape of the university's governance and decision making procedures. In addition, new pressures are building up externally with larger societies turning their attentions to the university for many reasons. In such a scenario, the resource allocation processes cannot be studied by understanding the educational institution through existing bureaucratic and collegial models alone.

In other words, because of the nature of university governance, viewing the university based on a single model is inadequate. The Weberian model of bureaucracy, although well suited to the analysis of business and governmental organizations, is not capable (on three grounds) of capturing the uniqueness of universities as organizations. Firstly, the model is only capable of explaining authority which stems from legitimate and formalized power, but is not able to explain other types of power, such as power based on non-legitimate threats, power based on the force of mass movements, power based on expertise, and power based on appeals to emotion and sentiment. Secondly, the model is weak because it is only concerned with formal structure, but neglects to explain the processes that give it dynamism. A description of the static organizational arrangements may be helpful, but it does little to explain the rationale of such arrangements and why these arrangements change over time. Finally the model fails to account for political issues, such as the struggle of groups within the organization with strong external allegiance, such as academics in universities.

The collegial model, though appealing for its emphasis on consensus and democratic decisions based on shared norms, values and premises about organizational purpose, and a commitment to institutional objectives (and hence motivated by common interests), fails to deal adequately with the problem of conflict. The collegial proponents are correct in declaring that simple bureaucratic rule-making is not the assense of decision making, but in making this point, they fail to see that although decisions are sometimes reached by consensus, much of the consensus occurs only after a prolonged battle, and that many decisions are not consensus, but the prevalence of one group over another.

The political model emphasizes the differences in objectives and preferences of subunits and participants, and seeks to describe the process by which conflicting preferences and beliefs are resolved (*Salancik & Pfeffer, 1974*). It is also argued that computational and bureaucratic forms of decision making can be employed only when there is agreement both about the goals and about the causal connections between actions and the results of those actions (*Thompson & Tuden, 1959*). As such, when there are differences and uncertainties about the appropriateness of actions, judgments and compromises become necessary to reach a decision (*Cyert & March, 1963*). Thus, decisions in organizations are motivated by self-interest leading to decision outcomes to be determined by considerations of power rather than what action is optimal for the total organization (*Hardy, 1990*).

Finally, Becher (1984) noted that, the anarchical model should be described more as anti-managerial than managerial, and are concerned more with disorganization than with organization. The emphasis is on individual autonomy, derived from professional expertise and reinforced through external reference groups. Such a characterization best fits educational, social and public organizations; but it may be true of any organization, in part, at least some of the time (*Cohen et. al., 1974*).

As such, in explaining the resource allocation processes in this study, all the four models will be employed.

RESEARCH METHODOLOGY

This study was carried out in a large government funded university in the United Kingdom. It focused on the financial resource allocation systems and processes, in general, and the recurrent expenditure and on the allocation of staff (at faculty and departmental level), in particular. This study concentrated on one of the faculties and all of its eight departments.

The main aim of this study is to understand the roles of budgets and the processes of budgeting as the mechanisms used in allocating scarce resources in an organizational setting. More specifically, it sought to explain how and why the resource allocation process (budgets and the processes of budgeting) of the university was carried out and worked the way it did.

The research was carried out both as an exploratory and explanatory case study. The method suggested by Glaser and Strauss (1967) was adopted. Data were gathered through observations of budgetary activities, such as budget meetings and discussions; analysis of documents and historical records; and interviews with key members of the staff directly involved in the resource allocation processes. Besides, data on historical events and series of specific activities were traced and examined as participants interact with each other in the process.

In the analysis, methods used drew heavily on the naturalistic approach suggested by Tomkins and Grove (1983) and Abdel Khalek and Ajinkya (1979). Data were interpreted with the purpose of developing a picture to explain the dynamics of the resource allocation process. Patterns which emerged from the analysis were observed. Finally, interpretations and conjectures were offered based on the four models described earlier.

LITERATURE REVIEW

The first study which addressed the issue of resource allocation in universities can be traced to the work of Baldrige (1971). Building upon the work of March (1962) and Cyert & March (1963), he carried out a study of the resource allocation process in the New York University. He utilized the political model on the assumption that it provides a more accurate description of reality than the traditional models -- bureaucratic and collegial. The study focused on three critical issues -- policy formulation, campus conflict and organizational change. He found that within the political process, policy formulation emerged from a complex set of political schemes. Conflict is to be expected because it develops naturally as competing groups struggle to influence policy.

Pfeffer & Salancik (1974) extended the use of the political model developed by Baldrige, investigating the effects of subunit power on resource allocation decisions at the University of Illinois. They found that measures of departmental power in a university are significantly related to the proportion of the budget received. They also found that subunit power in the organization is related to the subunit's resources. The more powerful the department, the less the allocated resources are a function of departmental work load and student demand for course offerings. They also suggested that departmental power is most highly related to a) the department's ability to obtain outside grants and contracts; b) its national prestige; and c) the relative size of the graduate program following closely in importance.

Conceptually, the above study utilized the bureaucratic and coalition models as alternative explanations of resource allocation and sought evidence to test these models. They argued that budget allocations based on universal criteria are consistent in both models. The models, however, differ in that the bureaucratic model makes no provision for the interplay of power between subunits during periods of resource scarcity. The

study supported the contention that power is important and the coalition model is appropriate for the study of resource allocation.

Hills & Mahoney (1978), further examined the same issue -- in the University of Minnesota. However, the focus shifted from considering total budget allocation to just the allocation of discretionary budgets. The results obtained from their study led them to conclude that the relative abundance or scarcity of resource available for allocation has a significant influence in the way budgeting is carried out. Hills & Mahoney also explored whether budgeting conforms more closely to a bureaucratic model or to a coalition model. They concluded that the latter is superior than the former in explaining the resource allocation decisions, at least during a period of relative scarcity of resources.

Hachman (1985), on the other hand, explored the issue of resource allocation from the perspective of how close a unit's purpose matches the central organization's purpose. The result of this study supported the view that colleges and universities are political organizations operating as open systems. It also reinforced the conclusion the budgeting itself is a political exercise.

Resource allocation decisions in times when universities are faced with grant cuts, were addressed by Hardy (1988), in her case study of the budget systems of the University of Montreal. However, instead of commencing by using the political model, she analyzed the *economic rational model* and contrasted it with other known models. In her study, she found that the university relied heavily on the economic rational approach when managing cutbacks.

However, she argued that other models are also present because the cutback occurred within a bureaucratic context and may have been used politically -- to influence and

legitimize decisions, and/or for collegial reasons -- to build consensus.

The studies discussed above are all in the micro orientation perspectives. Investigations were carried out from the perspective of departments as resource recipients. The emphasis was on the extent and conditions under which power is implicated and used by subunits, which resulted in an inequitable distribution of resources within the organization. Boland & Pondy (1983) and Covaleski & Dirsmith (1988a, 1988b), however, have taken a rather different route. Both studies focused on the issue of resource allocation from a processual and the wider macro perspectives. Instead of looking at departments as resource recipients, their investigations focused on allocation processes from the view of the universities as resource recipients. The main emphasis was in describing and explaining the processes in the context in which they operate.

With the University of Illinois as the empirical setting, Bolang & Pondy's case study attempted to find out how resource allocation process serves both the objective and the symbolic functions. The objective function is served by allowing problems of budgeting to be put in such a way that it is suitable to both internal and external values systems. The symbolic function is apparent in at least two instances -- firstly, when the process continues even though the funding for it is clearly not available, and secondly, when the account captions are used to disguise the real intentions in the request for funds. The study also sought to show how accounting was used in a rational manner and also in a naturalistic manner. They found that, at times, the natural was suppressed and the rational dominates, and vice versa.

Covaleski & Dirsmith (1988a, 1988b) in their study carried out at the University of Wisconsin, addressed the issue of how, by whom and for what purposes, societal expectations of acceptable budgetary practices are articulated, enforced and modified. They concluded that internal resource allocation is a process in which

political and institutional forces of conformity are moderated. The process appears to be infused with power and self interest as individuals within and external to the organization actively invent and then articulate institutionalized expectations about organizational policies and procedures.

DECISION MAKING STRUCTURE

The decision making processes of resource allocation of the University being studied were characterized by what were commonly known as the *government by committees*. At the top of the hierarchy is the Council, the University major executive and financial body. It manages the University finances and property, and is responsible for the University external relations and acts as the employer for all its staff. The Chairman of the Council also chairs the Finance Committee, established to advise the Council on all financial matters and other related business aspects of the University activities. The second important committee is the Senate, the University chief academic authority, chaired by the Vice Chancellor (VC). The Senate advises the Council on all academic matters and coordinates the work of the Faculty Boards. At the departmental level are the departmental boards, responsible for the giving of advice to the heads of departments on matters relating to finance and developments of academic matters.

Serving both the Council and the Senate on the allocation of resources for academic purposes is the Joint Committee on University Development (JCUD), also chaired by the VC. This committee advises the Senate and the Council on matters, such as the establishment of new posts, the authorization of replacement appointments, and the distribution of recurrent and equipment grants. Another committee which is involved in the resource allocation processes is the Faculty Development Sub-Committee (FDSC). There are five FDSC. Mediating between the JCUD and the FDSC is the Academic Planning Sub-

Committee (APSC). Its members includes the VC as the Chairman, four pro-vice-chancellors, four members elected by the Senate and one representative of the University Student Union.

There are two committees external to the University which is involved in the University financial resource allocation processes. They are the Public Expenditure Survey Committee (PESC) and the University Grants Committee (UGC), which was later replaced by the Universities Funding Council (UFC). The PESC was created in 1961, responsible for the long term view and implications of government expenditures. The UGC, on the other hand, acts as an intermediary between the Government and the universities. It is regarded as a machine that enable public funds to flow into the universities without direct governmental intervention (Jarratt Report, 1985).

THE RESOURCE ALLOCATION PROCESS OF THE UNIVERSITY

The University's resource allocation process was a semi-devolved system. The Faculty was interposed as a separate decision making level between the granting body (the University) and the primary spending unit (the departments). The faculty was responsible for academic decision making and undertaking other financial functions, such as bidding for resources, receiving a budget and reallocating it to spending units.

The budgeting process began with the University's administration laying down budget protocols that set out basic constraints, priorities and planning assumptions to which the operational budgetary units must follow. Based on this protocol, the JCUD, on behalf of the University, decided on the saving targets in which the University has to achieve during the coming year. Once this was done, the JCUD proceeded to decide how those savings should be shared or split between various faculties,

taking into accounts such factors as projected student numbers. The faculties were then informed of the JCUD's decisions and asked to come up with their own budget.

In the faculty, all heads of departments were requested to submit their budgets to the Dean. The Dean then reviewed all the requests and with the assistance of the Faculty Secretary, produced a provisional recommendation detailing areas where savings were expected to be made, posts to be abolished or should be replaced. The FDSC then met and deliberated on the recommendation made by the Dean. It was only after this that the faculty consolidated departmental budgets into a faculty budget for submission to the APSC.

At the APSC meeting, the Dean or Chairman of the FDSC was asked to justify his or her requests. Approval was granted after the Committee was satisfied with the explanation. In cases where approval was of given, the requests were returned to the JCUD for reconsideration.

The APSC's decisions were submitted to the JCUD for verification. After that the JCUD presented a report to the Senate of the University for approval and to the University's council for the final approval. Each faculty will be able to raise the issue again at the Senate meeting should they feel unhappy or disagree with the decision made by the JCUD.

The actual amount each faculty gets and how much a spending unit receives its allocation depend on how much the University as a whole gets. Since the amount the University gets seldom meets its initial requests, the distribution of this limited resources by the UGC to the faculties was based on several factors. While the approved budgets became the main criteria, there were cases of exceptions when distributions were based on certain priorities decided by the JCUD. The faculty, too, seemed to follow the same procedure. That is, since it did not get all the money it

initially requested, allocations to spending units were also rationed to allow its priorities to be implemented.

At the departmental level, once an allocation is received, the budget head (normally the head of department) was given the autonomy to manage its own spending -- on consumable and minor works expenditure. In most cases, interference from the Dean is minimal -- as long as the departments run their house in order and objectives are met.

DISCUSSION AND ANALYSIS

From the above descriptions, it can be seen that the University financial resource allocation was a rather complex process. It involved value judgments, the exercise of influence and power, and the confrontation of rival strategies in the pursuit of limited resources. Many of these activities could not be directly observed. In such a case, an understanding of resource allocation was only possible by examining and interpreting how the people involved in the process made sense of what was going on and how they went about participating in it.

Observations made from the research can be explained using theories which highlight specific behavioral characteristics of the findings. As such, a more comprehensive framework which can capture the complexities of the system in an academic institution as a whole will have to be considered. To this, a framework proposed by Becher (1984) will be employed.

Becher argued that academic institutions exhibit not only one but at least four organizational behaviour patterns, that is, hierarchical, collegial, anarchical and political. Each of these patterns developed according to the manner in which the institution is organized, on the way power is legitimated, on how the decision making process is structured and on how influence is derived. However, these pattern of behaviour are not observable

all at once nor at the same time. One or several may be dominant at different points in time depending on the circumstances the institution finds itself in. Each coexists within the framework of a single organization.

Becher then illustrated how and when the four patterns of behaviour come into play by complementing it with Bailey's (1977) metaphorical analysis of academic institution's mode of activities – the front stage (where formal discussions took place, and decisions are taken based on espoused principles); the back stage (where deals are done and decision situations dictate compromises); and under the stage (where gossip is disseminated and people lobby for influence). Bailey suggested that different types of academic committee characteristically occupy different stages. For instance, the large, representative committee (such as the Senate) has little choice but to work front stage. On the other hand, the small, powerful expert committee (such as the JCUD) is, in general a back stage enterprise. Under the stage lie the informal activities where relations are established among various members involved in the process.

The resource allocation systems of the University, on the other hand can be explained using the bureaucratic framework suggested by Weber. The bureaucratic aspects of the University can be seen from the formal administrative structure that puts the Vice Chancellor at the apex of the hierarchy. The executive function was characterized by a chain of commands with each individual occupying specific roles based on the authority conferred from above. Their work was predetermined by regulations and procedures and was subjected to a high degree of institutional scrutiny and public accountability. Since this bureaucratic pattern of management was highly visible, it could thus be said that it operated in a front stage mode.

The collegial nature of the University, on the other hand, appeared in the form of establishments of committees, such as the APSC, the JCUD and the FDSC. They formed an

interconnected network of academic officers, undertaking collective responsibilities in mediating and ratifying allocation decisions. Their main responsibility was to reconcile the plurality of goals and values espoused by the departments to some kind of working consensus that respects intellectual interdependence. The emphasis was on the autonomy of academics and scholars having equal rights to policy making, and on individuals enjoying a high level of discretion to conduct their own affairs. As such, the high visibility in which these committees carried out their tasks could be attributed to the need for them to be seen as operating in front rather than back stage.

The determination of how much to ask for was the most important decision made at the departmental level. The internal resource allocation and control were essentially matters of anarchical decision as they effectively revolved around some form of work-sharing agreement which reflected more or less informally the potential contributions of the staff members to the mix of teaching, research and administrative activities undertaken. Departments had to reconcile this plurality of goals and values into some kind of working consensus. The manner in which they went about bidding and requesting for resources did reflect the pattern of personal interaction among close colleagues, which was, in this case, the informal discussions or personal presentations -- characteristics of the under stage activities.

The results of this initial under stage reconciliation process were not of course made public in their raw state. What normally happened was, when a department planned to ask for an additional staff member, the head of that department would usually make an initial inquiry and discuss the matter informally with the relevant people -- a sort of lobbying. If it was felt that the chance of it being successful was good, a written proposal supporting such a bid or request would be submitted to the dean. If the bid or request fail to be approved at the meeting, but the department felt very strongly about it, the same process might be

repeated and the bid or request would be modified for resubmission. If the bid or request was not approved because of financial reasons, it might be put on hold and resubmitted when the financial situation has improved either in its original or new form.

The above represented the political-back stage activities at departmental and faculty level. It involved bargaining and negotiation which might have to be done informally by specific interest groups. The purpose was to avoid recommendations that might be subsequently rejected by the APSC and the JCUD. Only those which stood a reasonable chance of being approved were fed into the hierarchical management system (through the APSC) to emerge on the front stage (the JCUD meeting) as a proposed faculty budget. In some cases, however, the process did not stop there some of the recommendations made by the FDSC might not get the approval needed from the JCUD. When this happened, those affected (the departments) by the decision might protest and put forward counter proposals of their own. The result was that a new set of fragmented, anarchistic plans would be developed largely in the under stage arena. The protester's arguments would be represented to the dean and fed into the institution's collegial structure, before being translated into new claims. In this acceptable front stage form, they acquired the status of a widely supported collegial response to the official university budget.

At this point in the proceedings, there were two rival sets of proposals being advanced in the front stage; the first having emerged hierarchically and the second collegially. But, since the first rested on a power-political bargain and the second on an anarchistic counter-protest, the only way forward lay in compromise. Thus, once again, the action moved back stage (the lobbying process between the dean and the members of the JCUD), where reason takes over, and where adjustments are made to the inescapable demands of the outside world (Baily, 1977). The result of this further set of negotiations was an

agreed program for the cuts, duly ratified in the front stage. For the most part, both the JCUD (whose job it was to implement the cuts) and the faculty and its departments (who had to suffer their effects) ended up being reasonably satisfied with the compromises which were made. Those in the committee were realistic enough to accept that their initial cut was no more than a first approximation, and that their best political guesses were unlikely to turn out exactly right. Those in the collegium were pleased and possibly a little surprised that at least a number of their demands had been met, considering the fact that resources were scarce (Becher, 1984).

CONCLUSION

The explanation offered above offer no more than one particular way of interpreting the complex nature of the resource allocation processes of the University. The four models have shown to exhibit qualities which can be used to explain different aspects of the processes. For example, bureaucratic and collegial models were best used to understand effects of governance structure. The anarchical model offered a vehicle to understand the effects of collegiality in bureaucratic organizations while the political model was useful as a model to explain how anarchies are *organized* in organizations, such as universities.

This study illuminates several interesting features. Firstly, it portrayed the University as having a dual authority structure -- committees and executive positions. These structures formed the main channels of communication in the allocation processes to mediate between the budgetees (departments and faculties) and the budgetor (the University). This dual structure reflected the need to reconcile the dilemma of internal management of an educational establishment -- the need to maintain collegiality versus the need for having a hierarchy in decision making.

Secondly, although the University exhibited plurality in its characteristics and had been shown to lack common goals, these

features were useful in ensuring that all major issues were widely discussed before decisions were made about how best to deal with them. Despite the anarchical tendencies to reject centrally devised budgets, the collegial tradition might have helped in the end to bring about some form of convergence.

Thirdly, the institutional politics existing in the systems might be beneficial in that it might have helped the University as a whole to focus attention on the key roles of the departments and on their wide diversity of needs. Any decisions made were necessary to be adapted to the needs of the individual unit rather than applied globally and without differentiation. Finally, despite the emphasis on devolution to the faculties and the basic spending units, there emerged a strong role for central management. The JCUD, on behalf of the Senate and the Council was, however, the most powerful and the most influential committee in allocation decisions.

Suggestion for future research include extending this study in a more holistic perspective, exploring further organizational variables, and looking at how culture may influence and later affect the resource allocation processes.

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