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Rejoinder to Ryder

Recognizing Contexts and Managing Processes in Universities

Roger L. M. Dunbar, Rudi K. F. Bresser

Abstract

In their study of West German university departments, Bresser and Dunbar (1986) related measures of context and structure to measures of departmental effectiveness. Ryder (1988) suggests that other measures of effectiveness as well as measures of internal management processes would have greatly improved the study. Ryder may have missed some of the contributions that the Bresser and Dunbar (1986) study makes, particularly with respect to how size is measured and its impact on effectiveness. This note clarifies these contributions, along with implications for the management of contingencies that may influence the effectiveness of university departments.

Introduction

Particularly in situations where there is conflict and ambiguity concerning effectiveness criteria such as in higher education, it is necessary for researchers to describe explicitly what their focus of interest is. Cameron (1980, 1986a) provided seven guidelines and suggested they should be used to bound and circumscribe effectiveness research. These guidelines explain the focus of interest of the Bresser and Dunbar study (Bresser 1985).

From whose Perspective was Effectiveness Judged?

Universities in West Germany are predominantly public institutions. During the 1960s and 1970s, there were extensive debates amongst many different interested parties concerning how these universities might be improved or even reformed. Heated conflict characterized these debates. A major consensus goal that emerged was that the teaching and research capacities of the university system should be increased. For the period between 1964 and 1974, the budget allocations to tertiary education in West Germany increased by approximately 450 percent, while the total student enrolment doubled (Bundesminister für Bildung und Wissenschaft 1974). Therefore, the aim here was to determine whether these increases had succeeded in bringing about intended improvements in the teaching and research capacities of the West German university system, and whether there might be some critical contextual or structural contingencies that could be managed to facilitate effectiveness.

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On What Activity Domains was Attention Focussed?

In assessing the capacities of the university system, the Federal and State governments in Germany were primarily interested in (1) the outputs produced by the university system, and (2) the efficiency of the system in producing these outputs. This is not to say that other effectiveness goals such as program quality, student satisfaction, and career success are not important (Ryder 1988). In fact, such goals were widely discussed during the reform debates as summarized by Bresser (1982) and Breuer et al. (1975). However, national implementation efforts were primarily directed towards major consensus goals such as the promotion of teaching and research capacities (Bresser and Dunbar 1986: 3).

What was the Unit of Analysis?

Although our perspective reflected national efforts to improve and reform the West German university system, such efforts are implemented locally in particular university departments. In general, more resources should result in a more munificent environment and should open up strategic choice possibilities for academic departments (Hrebiniak and Joyce 1985). If the goal of government is to increase university capacities and efficiencies, then the extent to which this policy has been successful should be evident at the departmental level. Different academic departments were therefore chosen as the basic unit of analysis.

What was the Purpose of the Study?

Measures of effectiveness were expected to vary across academic departments, as were different contextual and structural variables. To investigate this idea, departments reflecting contrasting types of academic fields were chosen — business and law departments to represent social science perspectives, and chemistry and physics departments to represent physical science perspectives. The purpose of the study was to explore, using a contingency theory approach, the impact that various contextual and structural contingencies might have on measures of effectiveness in these different departments.

What Time Frame was Employed?

The data were collected in 1977/78, a time when efforts to reform the German university system should have generated visible effects. The study was cross-sectional, the aim being to make comparisons of effectiveness ratings and the factors associated with effectiveness across different departments at the same point in time. Reflecting this methodology, the study acknowledges its limitations with respect to drawing causal as opposed to comparative inferences.

What Type of Data were Sought?

In contrast to many studies on organizational effectiveness which have relied upon perceptual measures and subjective assessments, and in keeping with

Aston traditions, the data obtained in this study were objective in nature. For example, effectiveness measures were based on article or book counts, on the numbers of faculties, on the numbers of graduates, on the numbers of semesters it actually took students to graduate, and so on.

The measures of contextual contingencies were also objective, being either clearly identifiable or measurable. For example, business and law departments were grouped together as examples of departments relying on social science paradigms, and chemistry and physics departments were grouped together as examples of departments relying on physical science paradigms. The items included in the student emphasis and the resource availability factors, indicating two alternative manifestations of size, were also based on objective counts. Similarly, measures of structure were based on counts of hierarchical levels, numbers of committees, frequencies of meetings, and so on. In general, the data used involved a report on the state of affairs observed at the time of the interviewer's visit as supported through an examination of documents and records.

What was The Referent Against Which Effectiveness was Judged?

Based on previous research (e.g., Neumann 1977), it was expected that different academic fields would emphasize different effectiveness criteria. Thus, since the study was comparative, using other organizations as referents, comparisons were made within and across groups of departments representing different levels of paradigm development.

Contextual Contingencies and Their Implications

To explain effectiveness, the focus was on three contextual factors. Together, these factors explain from between 25 to 75 percent of the variance in eight effectiveness variables which, unlike Ryder (1988), we think are significant amounts. Paradigm development was the most important explanatory variable. Hence, the study concluded that it is necessary to distinguish between academic fields when making effectiveness assessments. These distinctions are much more than a 'gross structural feature' (Ryder 1988: 5).

The other contextual factors — size as reflecting commitments to process more students (i.e., student emphasis), and size as reflecting resources acquired (i.e., resource availability) — were related to only a few measures and often in undesirable ways. This suggested the possibility of a 'paradox in effectiveness' (Cameron 1986b) with both positive and negative associations being evident at the same time. For example, in social science departments an emphasis on processing students was associated with a greater number of graduates per faculty member, but it was also associated with more students taking additional semesters beyond those normally needed to complete the study programs. In contrast, in physical science departments, an emphasis on processing more students, though generally unrelated to effectiveness measures, was associated

with fewer completed doctoral dissertations. For social science departments, greater resource availability was essentially unrelated to effectiveness measures. But in physical science departments, greater resource availability was associated with fewer articles written by faculty, more semesters taken to complete courses of study, and increased numbers of semesters taken above and beyond those scheduled in study programs.

As larger departmental size correlated either in undesirable ways or not at all with effectiveness measures, the findings in Bresser and Dunbar (1986) can be interpreted as suggesting that effectiveness might be promoted through downsizing departments. Specifically, to expand total university system capacities and also to improve their effectiveness, reform efforts might concentrate on increasing the numbers of departments within the system while, at the same time, reducing their size. One of the anticipated consequences of such a policy might be to make departments more sensitive to the needs and concerns of both faculty and students.

Directions for Future Research

By focussing on potentially critical contingencies, Bresser and Dunbar (1986) highlighted the need to take account of the different effectiveness criteria used in different academic fields. The findings also highlighted the possibility of downsizing both social science and physical science departments in order to improve effectiveness. With these findings as background, the suggestions of Ryder (1988) to include additional effectiveness measures in future research including some subjective assessment by students and assessments of strategies being pursued by administrators make sense. As structural measures had little impact on effectiveness, it could well be that measures of leadership style, culture and climate may be critical aspects of decision-making processes within university departments that could relate to effectiveness. For example, Ryder (1988) emphasized that attracting additional external resources may greatly influence departmental effectiveness. While this leadership capacity may well be important in many university systems, it is legally circumscribed in West Germany. At least in the late seventies, all funding which had not been provided by either governments or research foundations had to be approved by state ministries, and in practice, this requirement had strong inhibitive effects.

The Bresser and Dunbar (1986) study suggests that academic field (paradigm development) and departmental size are important contextual contingencies which future research should consider in attempts to develop a more complete specification of models explaining the effectiveness of university departments. Studies of contextual factors clarify (manageable) constraints that influence effectiveness and at the same time, open up possibilities for the strategic management of universities. How these strategic choices are exploited requires inquiries into management processes as suggested by Ryder (1988).

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