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# Local Government Management and Performance: A Review of Evidence

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# **Local Government Management and Performance: A Review of Evidence**

## **Abstract**

Local governments play a critical role in delivering services to the public. Over recent decades scholars have begun to empirically examine the relationship between the management and performance of local governments, locating this in economic, contingency and resource-based theoretical frameworks. In this study, we undertake a comprehensive assessment of what is currently known about the management-performance hypothesis in local governments by integrating the empirical research that has been published over the past forty years. We uncover 86 empirical articles that rigorously test the management-performance hypothesis and apply the support score review technique to the findings of these studies. Our analysis suggests that scholars have yet to explore all of the approaches to local government management with the same vigor. The majority of attention has been focused on the concepts of organization size, strategy content, planning, staff quality, personnel stability, representative bureaucracy and networking. The evidence points toward strong positive performance effects resulting from staff quality, personnel stability, and planning, and moderate support for the benefits of networking, representative bureaucracy and strategy content. Sub-analyses reveal different relationships across dimensions of performance and organizational levels within local governments, and that the British and American scholars that have dominated these studies have largely drawn upon divergent theoretical perspectives. Directions for future research are also considered.

Local governments are responsible for the management and delivery of key public services in countries worldwide. From picking up the garbage and cleaning the streets, to the provision of schooling and care for the elderly and vulnerable, these organizations invariably lead the development and implementation of innovative solutions to new and pressing social problems. Local governments, in addition to being at the forefront of delivering and providing the public services on which citizens rely, are often also the most public face of the state. The “street-level bureaucrats” who deliver local public services play a vital role in shaping what it means to be a citizen through their interactions with clients and service users (Vinzant and Crothers 1998). The management and performance of local governments is thus an issue of both timely and enduring importance to researchers, policy-makers and citizens alike (see Sharpe 1970).

Many of the most influential theories about public sector management have been tried and tested within a local government setting. Economic theories of efficient service production, contingency theories about organizational design and resource-based arguments concerning the capacity and capabilities required for success have all been applied to the study of local governments (Baumol and Willig 1986; Burgess 1975; Davies 1969; Greenwood, Hinnings and Ranson 1975a, 1975b; Hansen and Kjellberg 1976; Honadle 1981). In fact, quantitative empirical research on the management and performance of local governments has a long pedigree. Studies of the productivity of municipal governments in the US emerged in the early twentieth century in response to the most pressing policy problems of the day, and become a hallmark of the Progressive Era of social reform in the country thereafter (Williams 2003). During the 1970s and 1980s, scholars in the US and the UK made seminal contributions to the empirical study of the efficiency of local governments (e.g. Newton 1982; Ostrom 1972). These studies focused on the size and structures of local governments, and were often a reaction to attempts to reorganize local public service provision in pursuit of cost-savings (Boyne 1998). More recently, the rise of the

New Public Management (NPM), with its emphasis on making the public sector more market and businesslike, has coincided with a large-scale research effort focused on the determinants of public service improvement; that is, the strategies and management practices that might improve the performance of public sector organizations (Ashworth et al. 2010; Walker et al. 2010). Much of this recent research has been conducted in local government settings and has drawn on large-scale empirical analyses of datasets comprising quantitative measures of management and performance. However, to date, the results of all these wide-ranging empirical studies have not been integrated to establish the extent to which the management of local governments actually makes a difference to their performance.

The present study makes two contributions to the literature on local government management. First, it undertakes a comprehensive assessment of what is currently known about the effects of management on the performance of local governments by integrating the theories and evidence from the empirical research that has been published during the past forty years in the leading public administration journals. This systematic review has the potential to offer clear and valuable lessons informing the development of public administration research and theory in the field of local government, and the wider field of public sector management and performance more generally. Second, a critical assessment of the methods and findings of the extant studies will help to identify a research agenda that builds on the strengths of the current evidence base while addressing areas that require further attention.

The balance of this paper is organized as follows. First, theoretical perspectives on local government management and performance are examined to develop broad expectations about the effects of different management approaches on performance. Next, we consider the methodological requirements for the effective evaluation of management and performance in local government. Thereafter, we briefly describe the nature of the studies we review. Following

this, the support score method is applied to the evidence and we describe the findings of the meta-analysis. The findings point toward an inconsistent coverage of key management concepts, a focus on a relatively limited number of performance dimensions and geographical imbalances in the study of management topics. Where the evidence is strongest it points towards an association between performance and planning, staff quality, and personnel stability, but weaker relationships with representative bureaucracy, strategy content and networking. The paper concludes by discussing the limitations of the available evidence and offering suggestions for future study.

### **Theoretical Perspectives on the Management and Performance of Local Governments**

Many of the seminal studies on public administration have focused on the ways in which local governments, and those who run them, might improve their management and performance (e.g. Agranoff and MacGuire, 2003; Moore, 1995; Pressman and Wildavsky 1973). Even so, these studies have rarely drawn on a single overarching theory of management or an agreed set of key tenets for local government management. In fact, research on management and performance in local governments has exhibited considerable conceptual and theoretical heterogeneity. Thus, rather than seeking to develop a distinctive over-arching meta-theory of local government management on which to base our review of the management and performance evidence, we synthesize the broad perspectives on managing local governments for high performance that have shaped the empirical studies we review. In this respect, our approach follows that used in previous reviews of empirical studies of organizational performance in the public sector (e.g. Boyne 2003; Walker et al. 2010). We begin by exploring the nature of local government performance. Then, we review three key theoretical perspectives on the likely effects of key management approaches on the performance of local governments.

The dependent variable of performance, in studies of management and local government, is contested and open to debate (Boyne et al. 2006; Walker et al. 2010). The lack of consensus arises from the range of dimensions of performance available to scholars and public managers to track the attainments of their organizations and the number of stakeholders who take an interest in these achievements. In an attempt to deal with some of this complexity a number of models that inform the conceptualization of organizational performance in the public sector have been developed (e.g. Boyne 2002a; Boyne 2003; OECD 2005). The 3Es model focuses on the economy, efficiency and effectiveness of public services. Economy is the cost of procuring specific service inputs (facilities, staff, equipment) for a given quality. Public administration scholars tend to shy away from the use of economy due to the political way in which levels of expenditure are determined (Walker et al. 2010). Efficiency is technical—cost per unit of output—and allocative—responsiveness of services to public preferences which leads to measures of user satisfaction (Jackson 1982). Effectiveness is the actual achievement of formal service objectives. The inputs-outputs-outcomes (IOO) model examines the sequence of inputs, outputs and outcomes. Inputs are comparable with economy. Outputs include a number of categories such as quantity and quality (e.g. speed). The ratio of outputs to inputs offers a definition of technical efficiency. The outcomes include effectiveness from the 3Es model, but also impact and equity. The model also includes the concept of “value for money”, or the ratio of outcomes to inputs.

However, these models draw from the literature on the management of firms and omit to include other aspects of performance. For example, responsiveness is more than to immediate users in the public sector and extends to citizens and people representing users (such as the parents of school children or the relations of those receiving support from social welfare services). Walker et al. (2010) suggest that the focus on service-delivery is to the exclusion of

broader questions about the governance of public services and should necessitate the examination of question of accountability, civil and human rights and key questions of probity and corruption alongside democratic outcomes and participation in the democratic process. These additional dimensions of performance are critical for scholars to understand and assess the performance of a system of local government. Having said this, a focus on service-delivery is particularly important in local government vis-à-vis other levels of government, because local government represents the public face of the state and is where citizens' experience of government is derived on a day-to-day basis.

Extension of the 3Es and IOO models offers a range of performance measures across the service delivery, governance and democratic aspects of public services. However, whether something is viewed as a good or bad measure of performance, or good or poor performance attainment, is "in the eye of the beholder" according to Andrews et al. (2006, 29). There are many vantage points from which to judge the performance of a public agency and multiple sources of information to draw on in making this decision (Walker et al. 2010). Judgements about performance attainment are made by stakeholders, who can be internal (e.g. staff) or external (e.g. service users, citizens, regulators) and use data that are perceptual (from surveys), archival from secondary sources (audited performance indicators) or a combination of the two. A comprehensive study of the effects of management on the performances of local governments would need to draw on a range of performance dimensions from internal and external actors using a variety of data.

### Local Government Management and Performance

The literature on the management of local governments over the past forty years has reflected the evolution of policy debates over the roles and responsibilities played by local public services, along with broader management trends. These policy debates have often been shaped by a contest



between economic theories of government that focus on the pursuit of economies of size and scope and political theories that regard closeness and responsiveness to the citizenry as the *raison d'être* of local units of government (Sharpe 1970). Since the 1960s, these “classic” perspectives on local government have been supplemented by arguments from public choice theory, which emphasize the role that competitive pressure could play in prompting the better management of local governments, especially through contracting out and other marketised processes. This has resulted in studies on competition and contracting behavior that over time became associated with the NPM (Boyne 1998). Meanwhile, the emergence of management studies as a serious branch of social psychology and sociology has led generic theories of organization to become increasingly influential among policy-makers, scholars and practitioners (Kelman 2007). Three key broad theoretical perspectives on the management of local governments—economic theories of service production; contingency theories of organizational design; and, resource-based arguments about distinctive production capabilities—encapsulate much of this literature.

The “classic” economic perspective on scale economies in local government that emerged in the 1950s and 1960s suggested that larger units of government simply perform better and more efficiently due to their ability to spread fixed production costs (Boyne 1998). This focus on the benefits of scale was apparent in many of the early studies of local government performance (e.g. Davies 1969), and has subsequently emerged in the call for greater collaboration between local governments (Agranoff and MacGuire 2003). Even so, there may be an optimum size for any given unit of local government at which its performance is maximized. In addition to an optimum scale for production, economic theories of local government suggest that there may be a preferred ownership structure, with certain local services better provided by private firms rather than “in-house” by local governments themselves (Christoffersen, Paldam and Wurtz 2007). In fact, contestability of service provision itself can also be a vital source of competitive pressure that

prompts local governments to manage resources in a more effective and efficient manners (Baumol and Willig 1986), as can the active involvement of service users in the co-production of local services (DeWitte and Geys 2013).

Decisions about whether to “make or buy”, to increase co-production and about the optimum scale of service production resonate strongly with the broader inspiration that lies behind contingency theories of organization. That is, that certain organizational forms (or configurations of characteristics such as size, structure, process and environment) are likely to prove more successful than others, and that the design task for top management is therefore to establish a *fit* between an organization’s form and its goals (Miles and Snow 1978; Thompson 1967). More specifically, according to contingency theories, an organic structure is required to achieve fit successfully in complex organizations, whereas a more mechanistic one would suffice in simpler entities (Burns and Stalker 1961). Within the field of public administration, contingency approaches to understanding organizational design began to emerge in the studies carried out by members of the Institute for Local Government Studies at the University of Birmingham in England. These studies explored the associations between different configurations of size, structure, administrative intensity and the organizational environment (e.g. Greenwood, Hinnings and Ranson 1975a; 1975b). This research was, in turn, influenced by the growing belief that strategic planning held the key to organizational performance (Mintzberg 1994). Application of the panoply of rational management techniques from targets and action plans to benchmarking and performance management would furnish the kind of goal clarity needed to deliver better results.<sup>1</sup> At the same time, there was a growing awareness that the broad

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<sup>1</sup> For the purposes of our review, we describe rational management techniques as examples of planned organizational activity that is designed to “enhance performance by forecasting changes in the organization and its environment” (Boyne 2010, 61). Of course, such techniques have

strategic content of organizations mattered; be it outward and expansive in nature, or inward and defensive in orientation, a stable and consistent strategy would be more likely to boost performance (Greenwood 1987). Yet, it was only in the 2000s that the performance benefits of all of these different aspects of strategic management for local governments were examined in depth (Andrews et al. 2012).

Missing from the largely UK-based literature applying contingency theory has been the consideration of the human and material resources required to ensure the effective delivery of local public services. This issue was, however, at the heart of debates during the 1970s among public administration scholars in the US, for whom the concept of capacity came to be viewed as “a language for public management” (Burgess 1975, 706). To this end, it was argued that a “capable organization manages its physical, human, informational, and financial resources” (Honadle 1981, 578). High capacity governments would thus have a combination of strong policy, program and resource management, which in turn enabled them to be “adaptable, effective and efficient” (Burgess 1975, 711). For Ingraham, Joyce and Donahue (2003), strong capital management, financial management, Human Resource Management, Information Technology management and leadership are all “management systems” that each have important parts to play in delivering high performance. Interestingly, this emphasis on the resources available for making policy happen is similar to the core theoretical insight behind resource-theories of the firm. Resource-based theories suggest that an organization’s human resources (i.e. its knowledge and skills-base), in particular, are rare and difficult to imitate and so constitute a key source of sustained competitive advantage (see Barney 1991). These insights derived from research on private firms are increasingly being applied to the management and performance of public organizations (Bryson, Ackerman and Eden

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many different functions within organizations, and are as often used as motivational and learning tools as they are used to assess performance improvements (Moynihan 2005).

2007; Piening, 2013). In fact, although the human aspect of public management has often been a focus of personnel specialists, it is increasingly seen as a subject fit for organizational analysis (O'Toole and Meier 2009). The quality of leaders and managers within a local government, the effectiveness of their links with key external stakeholders and the strength of the connections developed between bureaucrats and citizens, all constitute resources that must be deployed effectively in order to achieve desired outcomes. As such, the emergence of new ways of organizing public service delivery that go beyond the conventional use of hierarchies and markets has been reflected in the growth of empirical studies of local government management and performance that draw upon resource-based arguments.

This brief and somewhat linear story of the development of empirical research in the field has allowed us to introduce key ideas in an orderly fashion, but it is important to note that just as an interest in the human side of local governments has been evident for more than ten years (see Davies and Barton 1975), so too has research focused on the size of those organizations persisted (see Andrews and Boyne 2010). Another way to incorporate each of the alternative theoretical perspectives on local government management is to draw on formal theory specifying types of activities that might result in performance improvement. O'Toole and Meier's (1999) well-known model of public management, in particular, offers a clear account of how to synthesize the various effects of the management activities associated with the aforementioned perspectives. Their model establishes four core activities that public managers undertake when deciding how to allocate time and money. The first involves the maintenance and adaptation of existing structures and routines (M1). The second entails the development and implementation of a conscious strategy for managing the environment in which an organization operates (M2), which in turn takes the form of a balance between seeking to exploit environmental changes and to defend the organization from those changes (M3/M4) (O'Toole and Meier 1999).

Table 1 lists the main management approaches associated with the three theoretical perspectives on local government management and performance that we have introduced, and which we identified as having been the focus of one or more of the empirical studies reviewed. Table 1 also indicates how each approach to local government management can be incorporated within Meier and O'Toole's model of public management, and the anticipated relationship between those different approaches and local government performance. This conceptual framework forms the basis for our analysis of the studies of local government under review. The management approaches included in the final analysis are indicated in the right-hand column of the table.

[Position Table 1 about here]

### **Methods**

The empirical literature on management and organizational performance in local governments was located in the Anglophone public administration journals listed in the Thompson Reuters Web of Science Social Sciences Citation Index (SSCI). Not all of the abstracts reviewed indicated that a study was situated in local government. Rather than use search terms, we reviewed each article by hand from 1970 through 2012. This search procedure resulted in 490 empirical articles featuring questions of management and organization. We examined these studies in greater depth, and implemented the following decision rules for inclusion in the review: the unit of analysis was an organization, or part thereof (thus excluding studies at the individual level of the manager or citizen); studies included measures of management and organization (thus excluding studies focused solely on management or performance); performance was operationalized as the dependent variable; and articles presented statistical results in the form of multiple regressions that could be used in the "support score" meta-analytic

technique used in this study (see below).<sup>2</sup> This procedure resulted in a sample of 86 articles, containing 999 independent tests of some aspect of the management-performance relationship.<sup>3</sup>

The review strategy that we adopted benefits from focusing on peer-reviewed journal articles that were judged to be of suitable quality for publication by editors following a blind review process, and therefore expected to meet the basic requirements of theoretical and methodological rigor. It does, however, exclude unpublished papers on management and performance in local government and work sponsored by government, national and global organizations, such as the OECD, with an interest in the achievements of public organizations, along with books and book chapters. This approach may lead to bias, by overstating the relationship between management and performance if articles that contain statistically significant results are more likely to be published. Even so, estimates from other fields suggest that the magnitude of the bias is likely to be small (Rosenthal 1991).

The first group of studies we identified were published in the 1970s (Davies, Barton and McMillan 1971; Hansen and Kjellberg 1976). Three more were published in the 1980s, and eight more in the 1990s. Forty-eight were published in the 2000s and 25 in 2010-2012. The distribution of these articles over time suggests that interest in this topic soared in the 2000s, reflecting the upsurge in interest in questions of performance during that period. The majority of the studies were conducted in the US (49), with 28 based in the UK (England and Wales), 6 in other European countries and one each in Israel, Pakistan and South Korea. Local governments in most

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<sup>2</sup> Independent or linear associations between management and performance are considered in this review. Non-linear, mediated and moderated relationships are examined in some empirical studies (e.g. Andrews and Boyne 2011; Meier and Bohte 2000; and Walker et al. 2011), but not in sufficient numbers to undertake a comprehensive review on this occasion.

<sup>3</sup> A full list of citations is attached to the review manuscript, which will be posted on a website should the manuscript be published, or be included in the article if the editor deems it appropriate.

countries vary in scope and purpose. The studies in this sample capture these variations with 54 studies examining single purpose governments including fire brigades, police departments and school districts, and the balance (32) investigating multi-purpose governments that deliver several types of public service. Because most of the studies were conducted in the US and the UK, evidence of the provision of acute and primary healthcare by local governments is largely absent from our sample.

All of the studies were focused on a single set of organizations with an average sample size or number of observations of 1,070, ranging from 40 (Andrews et al. 2011) to 6,994 (Pitts 2007). Seventy percent of the studies (70.5 percent) implemented research designs that sought to address endogeneity and tease out causality, largely by introducing some semblance of time into the regression model: 42 used a panel design and 19 others a lagged data structure, leaving 31 purely cross-sectional studies.<sup>4</sup> Within these studies, eight dimensions of performance were used: effectiveness measures were most frequently used (459), followed by equity (148), aggregated performance indices (128), efficiency (79), service quality (68), customer or user satisfaction (64), cost effectiveness (31) and output quantity (23). Measures of management were evenly balanced between archival (497) and perceptual (502) methods of operationalization, whereas measures of performance tended toward the use of archival (or administrative) data sources (793), perceptual (or survey-based) (163) and indices incorporating both (43).<sup>5</sup>

#### Support Score Method

The method used to combine and synthesize the results of the empirical evidence is based on the percentage of statistical tests that support the hypothesis that management positively or

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<sup>4</sup> Hill (2005) included a panel and a lagged dataset, Walker and Boyne (2006) included cross-sectional and lagged analysis.

<sup>5</sup> A document summarising the different indicators used to measure each of these dimensions of performance can be obtained from the authors.

negatively (see Table 1) influences performance (Light and Smith 1971). We use the support score approach because the majority of the studies reviewed implemented multiple regression techniques without reporting correlations (Boyne 2003; Damanpour 2010).<sup>6</sup> To count as support for the hypothesis, two conditions must be satisfied. First, the results must be in the predicted direction. Second, the results must be statistically significant; that is, greater than would be likely to arise by chance.<sup>7</sup> By applying these criteria to all of the tests in a single study, a support score can be calculated as a percentage of all of the tests reported in the study.

Following this, an aggregate support score can be calculated across all of the studies in at least two ways (Boyne 2002b; Rosenthal 1991). First, the support score for each study can be treated equally, regardless of whether it contains 1 or 300 tests. Second, each study can be weighted (multiplied) by the number of tests in that study, with equal weight attached to each test rather than to each study. The advantage of the weighted mean is that studies that only report a small number of tests do not have a disproportionate influence on the analysis, whereas the advantage of the unweighted mean is that studies that conduct a large number of tests on the same data set are not given undue importance. An examination of the number of tests in each study shows that there is some right-side skew, with a number of studies reporting in excess of 40 tests over the average of 12 (standard deviation 13, minimum 1 and maximum 63). These studies are essentially outliers and could affect the robustness of the results, typically by suppressing the

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<sup>6</sup> Alternative statistical and computational approaches can be adopted for the purposes of meta-analytic reviews. These techniques generally require the reporting of correlation matrices. Unlike studies using correlation coefficients, the support score method reports statistically significant associations from regression models that control for other variables, thereby reducing concerns about bias arising from spurious relationships (Damanpour 2010).

<sup>7</sup> In the social sciences, authors sometimes report statistically significant results at  $p < .1$ , a practice adopted by some authors in this review. We include test results at 0.1 in the analysis. Sensitivity tests indicated that the use of  $p < .1$  as against  $p < .05$  had little effect on the support scores.



support score and producing heightened discrepancies between the unweighted and weighted scores. Given these unusual characteristics in the data, we report the unweighted support score first, and conduct sensitivity tests for studies with large numbers of tests and report these in footnotes. Finally, in interpreting the support scores, we follow Boyne (2002b) and Damanpour (2010), who proposed that unweighted and weighted support scores of 50 percent or more shows strong support for a hypothesis, that support is moderate if one support score is above 50 percent and that the hypothesis is not supported when both scores fall below 50 percent.

### **Management and Performance Evidence**

To ensure that we focus our attention on approaches to local government management, which have been subject to sustained investigation, the support score results are presented in tabular form exclusively for those aspects of management examined in 10 or more studies.<sup>8</sup> Hence, seven local government management approaches form the basis for our review of the evidence on performance effects: organization size, strategy content, planning, staff quality, personnel stability, representative bureaucracy and managerial networking. These studies account for 80.2 percent of the total number of articles reviewed (69 out of 86) and 70.8 percent of the tests (708). Thus, the majority of the research conducted on the management and performance of local governments has been focused on these questions, rather than on the other concepts of management that we identify in Table 1. Nonetheless, we are keen to stress that there is work going on in these areas, although it is relatively sparse when compared with that analyzed (see footnote #8). For now, systematic evidence suitable for meta-analytic review can only be garnered from findings on the seven management approaches benefiting from a larger number of

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<sup>8</sup> Support score results for those facets of local government management that were the focus of between 5 and 9 empirical studies are available on request: administrative intensity (5 studies, 29 tests), collaboration/partnership (5, 19), competition (9, 40) and leadership (8—of which 3 examine executive succession, 28).

studies. Included in the following seven tables are information on the sample, country of study, purpose of the government being investigated, the operationalization of the measure of management and performance, together with the support score for each study and a total for each area of management.

Economic theories of local government production have underpinned empirical research in the field for more than thirty years, and the role of size as a determinant of organizational performance was examined in more studies than any other management approach (Table 2).<sup>9</sup> These studies were predominately based in the US, examined multipurpose governments and were more likely to operationalize management and performance using archival data. A range of performance measures were used to gauge the effects of size, the most frequent being efficiency; no doubt reflecting the dominant economic perspective on the realization of scale economies in larger organizations. However, the unweighted support scores indicate that size is not a strong determinant of performance because over half of the studies provided non-significant tests, reflecting findings on public sector organizations more widely (Boyne 2003). Although the percentage of positive support scores indicate that larger organizations may be more likely to perform well than badly, these findings are not strong enough to confirm the basic tenets of economic (or democratic) theory. It is quite possible that the relationship between size and performance is non-linear. We uncovered four studies that reported 11 non-linear tests and

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<sup>9</sup> The concept of organizational size sits at the intersection between managerial discretion and environmental constraint. At first glance, the size of a public organization may seem to be a variable that is not within the purview of public managers; determined rather by the mission of the organization and the clientele to whom it must provide a service. Yet, the senior management in local governments may possess a degree of discretion over the size of the organization that they manage. Whether by seeking amalgamation with neighbouring governments or by implementing expansionary policies to compete for fiscal migrants, discretion over the size of local governments is an important component in the manager's toolkit, however crude, for managing the environment.

offered encouragement for this proposition, with an unweighted support score of 58 percent (weighted 72 percent) (Ashford et al. 1976; Knapp and Smith 1985; Meier and Bothe 2000; Theobald and Nicholson-Crotty 2005).<sup>10</sup>

[Position Table 2 about here]

Contingency theory indicates that the broad strategic orientation of an organization (strategy content) and its use of and commitment to formal analytical processes of planning play a vital part in determining levels of performance. Strategy content was examined in 12 studies of local government, and planning in 14 (see Tables 3 and 4, respectively). The majority of these studies were undertaken in the UK (7 of the strategy content and 11 of the planning studies in England and Wales, respectively—mostly multipurpose local governments). The measures of management for content and planning were perceptual, with the exception of the studies led by Folz (2004; Folz and Hazlett 1991), whereas performance measurement was varied. The results for strategy content are moderate, with the unweighted support score over 50 percent (66 percent), and the weighted below at 47 percent (Table 3). Strategy content is concerned with the plan of action through which goals are achieved in relation to environmental circumstances and internal characteristics. Contingency theories suggest that the actual content, or broad overall orientation, of organizational strategies a key part of the picture, but also that the effects of strategy content on performance are more likely to be felt when considered in combination with processes and structures (Miles and Snow, 1978).<sup>11</sup> In contrast, the evidence on planning is more

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<sup>10</sup> Ashford et al. (1976) and Knapp and Smith (1985) are not included in our review because they only report results for quadratic terms.

<sup>11</sup> Public administration scholars have focused on this question. Tests of the joint effects between strategy, structure, process and the environment have offered support for the contingent nature of these relationships (Andrews et al. 2012). However, attempts to examine the multiple interactions simultaneously have led to lackluster findings (Meier et al. 2010). As note earlier, meta-analysis of the studies examining non-linear relationships is something that must await the development of a body of evidence dealing with each of a range of core structural contingencies.

convincing and strong with both support scores over 50 percent (62 percent unweighted and 56 percent weighted).<sup>12</sup> Planning is associated with technical approaches to the management of organizations focused on the achievement of specific organizational goals. The body of evidence on the performance effects of planning in local government implies that rational planning and a spectrum of related techniques (such as benchmarking, targets and performance management) is a likely route to higher levels of performance. These findings on the influence of various types of planning are in keeping with the tenets of modern management, which argue that a rational approach to the management of organizations is associated with higher performance (Walker et al. 2010).

[Position of Tables 3 and 4 about here]

According to resource-based theories, attracting and retaining high-quality staff is critical to organizational success (Barney 1991). The stronger the talent within an organization, the more likely that it can be relied upon or marshaled to achieve higher levels of performance. The evidence for this thesis is strong. Table 5 indicates that around three-quarters of the studies examining staff quality and local government performance support the hypothesis that staff quality is an important route to success. Still, it is important to note that all of these studies, bar one, were conducted in the US in single purpose governments (school districts), and drew on largely archival measures. All of the studies, except that of Carmeli (2006), included measures of effectiveness. Until this set of studies is supplemented by more research in other settings, it is difficult to generalize about the benefits of staff quality.

Resource-based theories stress that personnel turnover can lead to declines in performance

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<sup>12</sup> The large number of tests in Boyne and Gould-Williams (2003) and Boyne and Chen (2008) do not skew the means. Removing these studies increases the unweighted test to 60 percent while the weighted test remains unchanged at 56 percent.

as organizations lose the vital expertise offered by experienced staff (Dess and Shaw 2001). Table 6 presents the results of our support score analysis for the effects of personnel stability on local government performance. Changes in personnel can be especially harmful to governmental performance because of the loss of investment in skills it represents and the costs of training new members of staff to replace those with experience and know-how (O'Toole and Meier 2003). As with staff quality, this aspect of local government management has largely been examined in special purpose governments in the US, with just two studies conducted in the UK and to date none elsewhere. Over 50 percent (unweighted 52, weighted 52) of these studies support the hypothesis that personnel stability is a positive force in public organizations. One especially interesting feature of the evidence in these studies is that stability has a positive effect on performance across two different organizational echelons: the front-line; and senior managers. In all of these studies, stability was measured as staff turnover, but used a mix of archival and perceptual data. Effectiveness was investigated in each study, with equity and service quality also a focus in four and two studies respectively.

[Position Tables 5 and 6 about here]

The theory of representative bureaucracy suggests that public organizations are more responsive to service users' needs when their workforces reflect the demographic characteristics of those users. From a resource-based perspective, workforce representativeness therefore constitutes a key human resource to be harnessed by managers seeking to improve results. All but one of the 14 studies of representative bureaucracy that we analyzed were conducted in the US, again in single purpose organizations, and drew exclusively on archival measures of management and performance. Ten of the studies included measures of effectiveness, and equity was examined in seven. Representative bureaucracy was operationalized at the organizational level and also across two echelons: the front-line and managers or administrators. The unweighted (61

percent) and weighted (43 percent) support score offer moderate legitimacy of the following thesis: that better representation of women and ethnic minorities in local governments appears, on average, to lead to better outcomes for those segments of society.<sup>13</sup>

[Position Table 7 about here]

The final management-performance support score table presents evidence of the influence of managerial networking. Resource-based theories highlight that networking with actors in the organizational environment is a key means for managers to secure external resources of money, time and legitimacy (Pfeffer 1987). Networking can both buffer the organization from unexpected changes in the environment and enable it to exploit any opportunities that arise, offering a conduit for the flow of organizational information. The unweighted support score confirms the veracity of these arguments, with 60 percent of the studies on managerial networking indicating better performance outcomes. However the weighted score stands at 37 percent, indicating moderate support.<sup>14</sup> These studies typically examined the effect of networking on effectiveness, with some also addressing equity and service quality. Networking was operationalized in surveys of organizational leaders and managers, whereas performance data were largely archival.

[Position Table 8 about here]

### **Management and Performance: Sub-Analysis**

Sub-analysis is presented on the trend towards disaggregating organizational units, the role of management at different organizational echelons and the impact of management on differing

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<sup>13</sup> The large number of tests in O'Toole and Meier (2003) skew the means, and removing this study results in strong support: the unweighted score is 63 and the weighted 52 percent.

<sup>14</sup> The large number of tests in O'Toole and Meier (2004b) and Goerdel (2006) skew the means somewhat and removal of these studies increases the unweighted support score to 63 percent and the weighted to 52 percent.

dimensions of performance. We also touch on important questions of methodology. In seeking to identify management practices that improve the performance of public agencies research studies need to be designed with appropriate measurement of the management and performance to address concerns about common source bias, and recording independent variables before dependent to tackle concerns over causality.<sup>15</sup>

### Multiple versus Single Purpose Governments

A prominent feature of the reforms that have swept across the public sector over the last three decades has been to disaggregate larger organizations into smaller more focused units (Boyne et al. 2003; Pollitt and Bouckart 2011). The process of disaggregating larger organizations is argued to bring positive performance effects because smaller single purpose organizations are seen to have clearer goals. Overall, the studies of single purpose local governments offered modest confirmation of this hypothesis with an unweighted support score of 53 percent and weighted of 46 percent (55 studies, 644 tests), set against weaker overall findings from multipurpose authorities (42 percent for unweighted and weighted, 31 studie, 355 tests). Turning to the effects of specific management approaches, studies of planning typically examined multipurpose organizations while those of staff quality, personnel stability, representative bureaucracy and managerial networking were largely located in single purpose organizations; studies of organizational size and strategy content were more mixed. Sub-analysis of size did not change the balance of results reported in Table 2. Single purpose organizations reported positive unweighted and weighted scores of 32 percent. Positive support scores were 38 percent unweighted and 27 percent unweighted for multipurpose local governments. The results for strategy content pointed towards some differences. Single purpose organizations reported a high

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<sup>15</sup> We are grateful to two anonymous reviewers for suggesting sub-analysis on the important questions of single and multipurpose organizations and common source bias.

unweighted support score of 70 percent, but this has to be tempered by a weighted score of 39 percent—a difference of just over 30 percentage point casts some questions over the level of support offered (see Damanpour 2010 for a discussion). However, the positive support scores for multipurpose organizations was strong: 61 percent unweighted and 58 percent weighted. On balance these findings on the specific management approaches do not offer support for the argument that single purpose organizations are more likely to reap the performance benefits of good management, however this statement has to be set against the relatively small numbers of studies and the preponderance of single purpose organizations in the USA and multipurpose local authorities in the UK that dominate the sample.

#### Organizational Echelon

Managers and staff working at different levels within an organization fulfill particular hierarchical roles, bringing different levels of authority and functional responsibility, which in turn may influence organizational outcomes in distinctive and different ways (March, Schulz and Zhou 2000; Moore 1995). Indeed, the role of staff at different echelons is central to the representative bureaucracy and personnel stability theses about management and performance. The former claims a stronger performance pay-off for representation at the street-level, while the latter points towards a bigger pay-off from a stable managerial cadre. To address the possibility that organizational echelon influences our findings, a sub-analysis was conducted of the studies that examined representative bureaucracy and personnel stability because they focused on different organizational strata. The results for representative bureaucracy suggest that representation matters most at the street-level. The positive unweighted support score for the studies that examined upper level managers was 18 percent (four studies, 15 tests; 20 percent weighted), whereas it rose to 67 percent unweighted (8 studies, 49 tests; 60 percent weighted) for the front-line staff. Support for the argument about top management stability is more equivocal.



In the eight studies (34 tests) that examined the upper levels of management, the unweighted support score was 54 percent (weighted 56 percent). The unweighted score for the front-line staff was 59 percent (48 percent weighted). Future studies should focus on the varying important roles played by managers and staff across the whole gamut of management approaches to more fully understand the effects of organizational echelon on performance.

#### Performance Dimension

The assessment of the independent effects of the seven management approaches presented in Tables 2–8 examined performance as a homogeneous concept. However, performance is multidimensional, thus a sub-analysis of the support scores for the separate performance dimensions was conducted to tease out more subtle relationships. To summarize the results for the effects of management on the different dimensions of performance, Table 9 presents a four by seven matrix containing the unweighted and weighted mean positive support scores for each measure of management, three key dimensions of performance (efficiency, effectiveness, and equity), and the index measures reported on at least four occasions.

[Position of Table 9 about here]

The first thing to note is that the main focus is on effectiveness. Less attention has been directed at the relationships between management, equity and index measures, and only the researchers who focused on the effects of organization size have systematically examined management's influence on efficiency (studies of staff quality have also examined service quality and planning user satisfaction, see below). Second, nearly half of the cells in Table 9 are empty. Efficiency has only been examined in relation to size. Studies taking equity as a dependent variable have examined staff quality, stability, representative bureaucracy, and networking while those examining size, strategy, and planning have used performance indices. Third, the mean unweighted support scores for the 15 populated cells are 50 percent or above in ten cases. These

findings suggest that planning, strategy, staff quality, and networking are all valuable for enhancing effectiveness. Strong associations are also identified for personnel stability, representative bureaucracy, and human staff quality in relationship with equity, as are strategy content and planning for indexes, whereas support for the argument that larger local governments garner efficiency gains is moderate. Last, and perhaps most importantly, the performance sub-analysis in Table 9 suggests that some management approaches may have a different relationship with the various dimensions of performance. This would be in keeping with contingency theory, and is something to which it would be valuable to return in future meta-analysis.

Size has a positive moderate association with efficiency, but largely non-significant relationships with effectiveness and performance indices. The two aspects of strategic management examined, strategy content and planning, are good for effectiveness and index measures of performance. Planning has a non-significant relationship with user satisfaction: the support scores are 49 and 40 percent unweighted and weighted respectively (not reported in Table 9). Staff quality is associated with both effectiveness and equity. Four staff quality studies also included service quality as a dependent variable (not reported in Table 9). These studies indicated an overwhelming, and somewhat surprising negative relationship between staff quality and service quality, with a negative unweighted support score of 75 percent and weighted of 67 percent. This is the only large negative association uncovered in this study, and is a relationship that clear would benefit from renewed empirical attention.

Representative bureaucracy and stability are more likely to be associated with equity, which would be in keeping with the theoretical framework, but as was noted in footnote #13, the unweighted test for the impact of effectiveness on representative bureaucracy rise to strong associations in the absence of studies with large numbers of tests. Networking is associated with positive outcomes for effectiveness and has a weaker relationship with equity. Thus, in sum, our

analysis of the impact of management on different performance dimensions is strongly suggestive of the need for local government managers to emphasize different management approaches in order to achieve different goals, and for researchers to include multiple dimensions of performance in their models such that they can examine the trade-offs made by managers.

#### Archival versus Perceptual Measures of Performance

There has been growing discussion of common source bias—recording management and performance in the same survey (Meier and O’Toole 2012; Spector 2006). It is argued that the same source of data likely inflates result leading to overestimates of the impact of management on performance. Perusal of the tables presented in this article indicates that archival measures of performance are frequently used in studies of management and performance in local government. A sizable number of studies (38 studies, 457 tests) did however use perceptual data on both sides of the equation. Rather unexpectedly the support scores for these studies did not result in overly optimistic assessments—positive support scores are 49 percent unweighted and 43 percent weighted. Studies that draw upon archival data for measures of the independent and dependent variable are somewhat surprisingly no more robust, and do not meet the threshold of a 50 percent for either support score—49 percent unweighted, and weighted (54 studies, 457 tests). The data presented in Tables 2-8 do not provide sufficient variation to conduct more detailed analysis. The studies reported in these tables largely draw on archival dependent variables or measures combining perceptions with secondary data and largely report positive support scores (with the exception of organizational size). Meta-analysis is a fruitful way to examine this question, and researchers could focus on this topic in more detail in future studies.

#### Cross-sectional or Longitudinal Research Design

An exploration of research design pointed towards moderate positive support score results for cross sectional studies (50 percent unweighted, 42 percent weighted, 26 studies, 211 tests) and

those implementing a lag between the measure of the independent variables of management and the dependent performance measure (51 percent unweighted and 37 percent weighted, 19 studies, 145 tests). However, studies that used panel data over time typically found no support for the management-performance hypotheses they were exploring (43 and 47 percent unweighted and weighted respectively, 43 studies, 655 tests). The results of this sub-analysis indicate that any conclusion about the moderate support scores from cross-sectional studies should be tempered by their findings of correlations rather than causality. Studies using lagged data structures (not in panels) are better able to tease out key relationships, but still utilize a less than perfect approach to do so. These are rather inconclusive findings, and more detailed analysis needs to be conducted as the data on the management-performance relationship in local government accumulates and permits sub-analysis on different management approaches.

### **Discussion**

In this study, we examined the effect of management on the performance of local governments. Our review of the 86 related articles investigates seven key approaches to local government management studied on more than 10 occasions: size, strategy content, planning, staff quality, stability, representative bureaucracy and networking. The findings from the support score analysis points toward strong positive performance effects from staff quality, personnel stability, and planning, and moderate support for the benefits of networking, representative bureaucracy and strategy content. Findings were weak in relation to organizational size. Sub-analysis illustrated some important variants: neither single nor multipurpose governments were more effective forms of organization, the management approaches of representative bureaucracy and personnel stability pointed to the impact that different groups of management in the hierarchy have on performance, and management approaches had different performance effects. One important characteristic of these findings is that they are typically drawn from studies in the UK

and USA. While there are limitations to these findings they do have theoretical and practical implications.

Debates about the merits of alternative management practices have waxed and waned. Empirical research on the management-performance hypothesis did not get fully underway until the 2000s in the management areas examined in this study—barring size, staff quality and representative bureaucracy—so the field is still relatively young. Yet, what we find in our meta-analysis does tend to corroborate what is known about organizational performance in the public sector more generally. In particular, our finding pointing towards the importance of staff quality for the performance of local governments mirrors that uncovered in Boyne’s comprehensive (2003) meta-analysis of the effects of management on performance across all public organizations. Still, the partial coverage of key management approaches indicates that the prescriptions of economic, contingency, and resource-based theories for the management of local governments have not yet been fully explored in the public administration literature. From a theoretical perspective, what evidence there is seems to suggest (as does Boyne [2003] and Walker, Boyne and Brewer [2010]) that a resource-based perspective may offer a better approach to understanding performance in local governments than economic or contingency theories—though our sub-analyses points toward the probable impact of multiple contingent relationship rather than the linear ones that are the focus of our present study. As scholars conduct more studies in different contexts and test more complex models of public management using techniques of moderation and mediation it is possible that contingency theories may offer more powerful explanation – something that we believe to be an important priority for future research. In terms of the O’Toole and Meier (1999) model, M1 and M3/M4 appear equally likely to be associated with better performance. Even so, there is to date only limited examination of the full range of variables that can be associated with that model. Table 1 lists nine management concepts

of M1 and nine of M3/M4. The studies we review examined only four of each of these.

One conclusion that we draw is that the research that has been conducted has not covered the full gambit of concepts underlying the theories that have been used to explain the management-performance relationship in local governments. At a very basic level, additional research is required on each of the concepts of management listed in Table 1, irrespective of whether they were examined in more detail in this study to advance knowledge and permit future integrative reviews to be conducted. Researchers may also want to turn to other topics not uncovered in our review such as inter-organizational relations, the decentralization of decision-making and bureaucratic autonomy (Boyne et al. 2005; Walker, Boyne and Brewer 2010)

We noted in the first half of the paper that the theoretical preoccupations pushing forward research on the management-performance hypothesis had differed between the UK and the USA; the two places where this agenda has most fully advanced. UK scholars have utilized a contingency perspective to a greater degree in studies on strategy—content and planning—while those from the USA have been more open to resource-based perspectives to examine questions of staff quality, stability, representative bureaucracy, and networking. Studies drawing upon economic theory were more internationally distributed. To tease out the validity of the tentative theoretical conclusions we draw regarding the superiority of systems and resource perspectives as predictors of performance, it will be important in future studies to apply contingency theories more frequently in the US and resource-based perspectives more often in the UK, and indeed to extend studies to different jurisdictions to enhance generalization. Theoretical and empirical studies that sought to synthesize these two perspectives would also make a valuable contribution to the further development of the field.

In terms of the practical implications of our study, the findings suggest that local government managers are likely to find routes to higher levels of performance when they seek to

achieve the highest possible levels of staff quality, and when front-line staff reflect the demographic characteristics of the clientele served. Policies, plans and practices must be developed to ensure that key staff are retained and that turnover rates remain low. Networking with other actors in the organizations' environments is also important. Finally, these practices should be located within a strategic management framework, with emphasis placed on identifying appropriate strategy content and using planning techniques. While organizational size was non-significant, the evidence from these studies does suggest that it matters for efficiency gains. Hence, these features of management cannot be overlooked. In fact, none of the management approaches examined were, on balance, harmful to performance. However, some management approaches offered a greater prospect of success than others, often with a particular dimension of performance. Notable here is the impact of size on efficiency, of strategy, planning and networking on effectiveness, personnel stability on effectiveness and equity, and representative bureaucracy and staff quality on equity.

It seems clear that for managers seeking to deliver performance improvements the prescriptions of resource-based theories offer the simplest route to success. Recruiting and retaining good quality staff, ensuring that managers interact with external stakeholders and that the organization is demographically representative are each management approaches that require investments of time and money, but ought to be within the reach of any well-managed organization. By contrast, the recommendations of contingency theory for a clear and consistent strategic orientation and the adoption of rational planning processes seem to be less reliable path to better results, perhaps because the demands of time, money and commitment required for successful implementation of these approaches are so great. Under the rubric of economic theory, we only reviewed size effects on performance, and so, unfortunately, are unable to offer any thoughts on the practical implications of contracting out, collaboration or co-production for local

governments. Still, that larger local governments do appear to be more efficient is an important finding, particularly for those local and national policy-makers and managers seeking to eke out savings from local government systems in the wake of the financial crisis of the early Twenty-first Century which has had a major effect on local governments in the two countries most studied in this review—the UK and the USA.

There are a number of limitations to this study, which point to the need for further investigation. Not all studies on the performance of local governments will be published in the public administration section of the SSCI. Some such studies may be found in the political science and urban studies disciplines, or in specialized policy journals in fields such as housing or education. These studies could be included in future work to develop a more comprehensive picture. The scope of this study does not permit space to examine methodological issues associated with measurement and model specification in detail. We note that the majority of the studies employed research designs that included time in the regression model, and thus seek to address concerns about causality. Issues of endogeneity nonetheless remain a concern in many studies of public management. For example, good performance may lower turnover intention or result in more demand for discussions with the staff of these local governments, leading to higher levels of networking. Prior performance has been used as an independent variable in a number of the studies that examine these and other questions as an approach to capture these concerns, but there are other methods that draw on instrumental variable and experimental approaches that can be applied. An in-depth examination of this aspect of research design would be fruitful.

Another such area is the use of single versus multiple informants in survey research. These approaches have trade-offs in terms of response rates and richness of information on organizational life. To date, there are important differences in the studies examined here. In the cases of perceptual measures of management, the Texas School District studies quizzed the



superintendent of the school district while studies from England and Wales adopted multiple informant strategies, surveying three echelons of the organization (O'Toole and Meier 2003; Walker et al. 2011). The findings from the echelon sub-analysis reported above point towards this as an important area of enquiry. The research evidence also suggests that using indices to measure performance is not perhaps the best way to operationalize the concept. Nonetheless, specific approaches to research design could influence the study findings and should be subjected to scrutiny. On a more practical level, scholars publishing studies of management and performance in local government could serve the academic community by publishing correlation coefficients in their multivariate studies. This would have two key benefits. First, future researchers would be able to conduct more traditional meta-analysis that reports effect sizes, and second it would be possible to publish studies that include both support score results and meta-analysis, simultaneously providing analysis that controls for other variables (support scores) and examines effect sizes (meta-analysis).

### **Conclusion**

A substantial amount of effort has been expended by a number of scholars to develop evidence of the effectiveness of management practices in local government. The balance of this evidence suggests that local governments' management strategies pay dividends. We examined independent effects on this occasion, but many scholars have been developing more sophisticated models of local government management, examining moderated and mediated relationships and using statistical techniques that reveal questions concerning performance trade-offs to understand more about high-achieving organizations. This is an important area of research that can contribute to our knowledge of management and performance in local governments and the policies and practices of delivering services to citizens. We encourage others to make the chamber of evidence richer.

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Table 1: Local government management approaches

<b>Theory</b>	<b>Key concepts</b>	<b>O'Toole and Meier</b>	<b>Anticipated relationship with performance</b>	<b>Included in the meta-analysis</b>
Economic theory	Organization size	M1, M3/M4	+	✓
	Contracting out	M3/M4	- or +	
	Competition	M3/M4	- or +	
	Collaboration	M3/M4	+	
	Coproduction	M3/M4	+	
Contingency theory	Administrative intensity	M1	-	
	Centralization	M1	-	
	Integration	M1	+	
	Strategy content	M3/M4	+	✓
	Planning	M1	+	✓
Resource-based theories	Management systems	M1	+	
	Staff quality	M1	+	✓
	Personnel stability	M1	+	✓
	Leadership	M1	+	
	HRM practices	M1	+	
	Representative bureaucracy	M3/M4	+	✓
	Networking	M3/M4	+	✓

Table 2: Organization size

Study	Sample	Country	Purpose	Management		Performance		No. tests	+	-	ns
				Size	Measure	Dimension	Measure				
Davies et al. (1971)	86	USA	SP	Population	Archival	Efy	Archival	2	100	0	0
Hansen & Kjellberg (1976)	460	Norway	MP	Population	Archival	Efy	Archival	4	50	0	50
Fitzgerald and Durant (1980)	438	USA	MP	Population	Archival	US	Perceptual	1	0	100	0
Walker & Williams (1986)	70	UK	MP	Population	Archival	Q	Archival	2	100	0	0
DeSantis & Renner (1994)	1257	USA	MP	Population	Archival	Efy	Archival	4	0	0	100
Miranda & Lerner (1995)	539	USA	MP	Population	Archival	Efy	Archival	1	100	0	0
Nunn (2001)	185	USA	SP	Population	Perceptual	Efy	Archival	4	0	0	100
Smith (2003)	179	USA	SP	Population	Archival	Q	Archival	1	0	100	0
Nicholson-Crotty & O'Toole (2004)	544	USA	SP	Population	Archival	Eft	Archival	3	0	0	100
Andrews, Boyne, Law et al. (2005)	148	UK	MP	Population	Archival	In	Archival	1	100	0	0
Melkers & Willoughby (2005)	194	USA	MP	Population	Archival	CE, In	Perceptual	2	0	0	100
Andrews, Boyne & Walker (2006)	120	UK	MP	Population	Archival	In	Archival	1	0	0	100
Carmeli (2006)	263	Israel	MP	Population	Archival	Efy	Archival	8	0	0	100
Goerdel (2006)	2120	USA	SP	Student attendance	Perceptual	Eft	Archival	5	0	0	100
May & Winter (2007)	159	EU	SP	Population	Archival	Eft	Perceptual	5	20	0	80
Sorensen (2007)	175	EU	SP	Population	Archival	Efy	Archival	3	100	0	0
Andrews & Boyne (2010)	88	USA	MP	Population	Archival	In	Archival	2	50	0	50
Andrews & Boyne (2011)	148	UK	MP	Population	Archival	CE, Eq, In	Archival	3	0	0	100
Aslam & Yilmaz (2011)	1885	Pakistan	MP	Population	Archival	Q	Archival	4	50	0	50
Andrews et al. (2012)	178	UK	MP	Population	Archival	In	Archival	2	0	100	0
								Number of studies	20		
								Number of tests	58		
								Unweighted	34	10	57
								Weighted	26	3	71

Key:  
 Purpose: MP = multi-purpose, SP = single purpose.  
 Performance dimension: CE = Cost Effectiveness, Eft = Effectiveness, Efy = Efficiency, Eq = Equity, In = Index Q = Quality, US = User Satisfaction.

Table 3: Strategy content

Study	Sample	Country	Purpose	Management		Performance		No. tests	+	-	ns
				Strategy	Measure	Dimension	Measure				
Folz & Hazlett (1991)	89	USA	SP	Technical innovation	Archival	Eft	Archival	1	100	0	0
Folz (2004)	556	USA	SP	Technical innovation	Archival	Eft	Archival	1	100	0	0
Andrews et al. (2005)	150	UK	MP	Defending, prospecting, reacting	Perceptual	In, US	Archival	9	67	0	33
Andrews, Boyne & Walker (2006)	119	UK	MP	Defending, prospecting, reacting, change market, change service, seek revenues	Perceptual	In	Both	3	67	0	33
Meier et al. (2007)	3041	USA	SP	Defending, prospecting, reacting	Perceptual	Eft, Eq, Q	Archival	27	22	15	63
Andrews et al. (2008)	51	UK	MP	Defending, prospecting, reacting	Perceptual	Eft	Archival	6	67	33	0
Andrews et al. (2009)	47	UK	MP	Defending, prospecting, reacting	Perceptual	Eft	Both	3	100	0	0
Meier et al. (2010)	3041	USA	SP	Defending, prospecting, reacting	Perceptual	Eft	Archival	6	33	17	50
Walker, Andrews et al. (2010)	101	UK	MP	Defending, prospecting, reacting	Perceptual	In	Both	12	50	0	50
Walker et al. (2011)	136	UK	MP	Management innovation	Perceptual	In	Both	4	0	0	100
Andrews et al. (2012)	178	UK	MP	Defending, prospecting, reacting	Perceptual	In	Both	6	87	0	17
Owens & Kukla-Acevedo (2012)	2490	USA	SP	Prospecting	Perceptual	Eft	Archival	3	100	0	0
								Number of studies	12		
								Number of tests	75		
								Unweighted	66	7	28
								Weighted	47	11	43

Key  
Purpose: MP = multi-purpose, SP = single purpose.  
Performance dimension: CE = Cost Effectiveness, Eft = Effectiveness, Efy = Efficiency, Eq = Equity, In = Index Q = Quality, Qua = Quantity, US = User Satisfaction.



Table 4: Planning

Study	Sample	Country	Pur p'e	Management	Performance			No. tests	+	-	ns	
				Planning	Measure	Dimension	Measure					
Folz & Hazlett (1991)	175	USA	SP	Targets	Perceptual	Eft	Archival	1	100	0	0	
Boyne & Gould-Williams (2003)	71	UK	SP	Action plan, external consultation, goals, internal consultation, plan quality	Perceptual	CE, Efy, Q, US	Perceptual	35	26	6	68	
Melkers & Willoughby (2005)	194	USA	MP	Performance management, planning	Perceptual	CE, In	Perceptual	6	33	17	50	
Andrews, Boyne & Walker (2006)	119	UK	MP	Performance management, user orientation	Perceptual	Eft, In	Archival	3	33	0	67	
Walker & Boyne (2006)	117	UK	MP	MIS, targets	Perceptual	CE, Efy, Eft, US, Iin	Both	12	50	0	50	
Boyne & Chen (2008)	147	UK	MP	Targets	Archival	Eft	Archival	48	83	0	17	
Andrews et al. (2009)	47	UK	MP	Rational planning, absence (reversed)	Perceptual	In	Archival	2	50	0	50	
Andrews (2010)	46	UK	SP	Strategic planning	Perceptual	Qua, Eq	Archival	5	40	0	60	
Andrews et al. (2010)	58	UK	MP	Benchmarking, targets, user consultation	Perceptual	Eft, In, US	Both	6	50	0	50	
Walker, Andrews et al. (2010)	101	UK	MP	Rational planning	Perceptual	In	Archival	2	100	0	0	
Andrews et al. (2011)	40	UK	MP	Rational planning, absence (reversed)	Perceptual	Eft	Archival	2	100	0	0	
Walker et al. (2011)	136	UK	MP	Performance management	Perceptual	In	Both	3	100	0	0	
Walker, Brewer et al. (2011)	67	UK	MP	Performance management, benchmarking, user focus, external consolation	Perceptual	In, US	Both	12	50	0	50	
Im and Lee (2012)	75	South Korea	MP	Performance management	Perceptual	US	Perceptual	1	100	0	0	
								Number of studies	14			
								Number of tests	138			
								Unweighted		62	2	42
								Weighted		56	3	43

Key  
 Purpose: MP = multi-purpose, SP = single purpose.  
 Performance dimension: CE = Cost Effectiveness, Eft = Effectiveness, Efy = Efficiency, Eq = Equity, In = Index Q = Quality, Qua = Quantity, US = User Satisfaction.

Table 5: Staff quality

Study	Sample	Country	Purpose	Management		Performance		No. tests	+	-	ns	
				Staff quality	Measure	Dimension	Measure					
Ruggiero et al. (1995)	636	USA	SP	Managerial quality	Archival	Eft	Archival	2	50	0	50	
Meier et al. (1999)	527	USA	SP	Managerial quality	Archival	Eft, Eq	Archival	2	0	0	100	
Meier & O'Toole (2001)	2535	USA	SP	Managerial quality	Archival	Eft, Eq, Q	Archival	3	100	0	0	
Meier & O'Toole (2002)	5126	USA	SP	Managerial quality	Archival	Eft, Eq, Q	Archival	11	82	9	9	
O'Toole & Meier (2003)	2525	USA	SP	Managerial quality	Archival	Eft, Eq, Q	Archival	10	60	10	30	
Carmeli (2006)	263	Israel	MP	TMT skills	Perceptual	Efy, In	Archival	4	100	0	0	
O'Toole & Meier (2006)	4114	USA	SP	Managerial quality	Archival	Eft, Eq, Q	Archival	1	100	0	0	
Meier et al. (2007)	3041	USA	SP	Managerial quality	Archival	Eft	Archival	9	78	11	11	
Meier & O'Toole (2008)	4114	USA	SP	Managerial quality	Archival	Eft	Archival	1	100	0	0	
O'Toole & Meier (2009)	2400	USA	SP	Human capital	Perceptual	Eft, Eq, Q	Archival	16	88	6	6	
Pitts & Jarry (2009)	1041	USA	SP	Teacher human capital	Archival	Eft	Archival	1	0	0	100	
Meier & O'Toole (2010b)	4114	USA	SP	Managerial quality	Archival	Eft	Archival	6	100	0	0	
Meier et al. (2010)	3041	USA	SP	Managerial quality	Archival	Eft	Archival	2	100	0	0	
Johansen (2012)	4664	USA	SP	Managerial quality	Archival	Eft, Eq	Archival	13	68	32	0	
								Number of studies	14			
								Number of tests	81			
								Unweighted		73	3	25
								Weighted		77	5	18

Key  
 Purpose: MP = multi-purpose, SP = single purpose.  
 Performance dimension: Eft = Effectiveness, Efy = Efficiency, Eq = Equity, In = Index Q = Quality.

Table 6: Personnel stability

Study	Sample	Country	Purp ose	Management		Performance		No. tests	+	-	ns	
				Stability	Measure	Dimension	Measure					
Davies & Coles (1981)	41	UK	SP	Personnel	Archival	Efy	Archival	2	100	0	0	
O'Toole & Meier (2003)	2525	USA	SP	Teacher & Managerial	Archival/ Perceptual	Eft, Eq, Q	Archival	20	65	10	25	
Bohte (2004)	1046	USA	SP	Teacher	Archival	Eft	Archival	5	0	100	0	
Meier et al. (2006)	1039	USA	SP	Teacher	Archival	Eft, Eq	Archival	5	40	60	0	
O'Toole & Meier (2006)	4114	USA	SP	Teacher & Managerial	Archival/ Perceptual	Eft, Eq	Archival	2	100	0	0	
Meier et al. (2007)	3041	USA	SP	Teacher & Managerial	Archival/ Perceptual	Eft, Eq, Q	Archival	18	67	0	33	
Meier & Hicklin (2008)	4315	USA	SP	Turnover	Archival	Eft	Archival	6	0	50	50	
Meier & O'Toole (2008)	4114	USA	SP	Teacher & Managerial	Archival/ Perceptual	Eft	Archival	2	100	0	0	
Pitts & Jarry (2009)	1041	USA	SP	Teacher	Archival	Eft	Archival	1	100	0	0	
O'Toole & Meier (2009)	2400	USA	SP	Teacher & Managerial	Archival/ Perceptual	Eft	Archival	2	50	50	0	
Meier & O'Toole (2010)	4114	USA	SP	Teacher & Managerial	Archival/ Perceptual	Eft	Archival	12	67	0	33	
Meier et al. (2010b)	3041	USA	SP	Teacher	Archival	Eft	Archival	4	50	0	50	
Meier, O'Toole, Hicklin (2010)	703	USA	SP	Teacher	Archival	Eft	Archival	3	0	0	100	
Boyne et al. (2011a)	148	UK	MP	TMT	Archival	In	Both	4	0	0	100	
								Number of studies	14			
								Number of tests	86			
								Unweighted		53	16	32
								Weighted		52	15	32

Key:  
 Purpose: MP = multi-purpose, SP = single purpose.  
 Performance dimension: Eft = Effectiveness, Efy = Efficiency, Eq = Equity, In = Index Q = Quality.

Table 7: Representative bureaucracy

Study	Sample	Country	Purp'ose	Management		Performance		No. tests	+	-	ns	
				Representative bureaucracy	Measure	Dimension	Measure					
Meier & Stewart (1992)	67	USA	SP	Black teacher & manager	Archival	Eft, Eq	Archival	14	43	14	43	
Meier (1993)	132	USA	SP	Latino teacher & manager	Archival	Eft, Eq	Archival	4	50	25	25	
Meier et al. (1999)	527	USA	SP	Minority teachers	Archival	Eft, Eq	Archival	2	50	0	50	
Meier and Bohte (2001)	2860	USA	SP	Minority teachers	Archival	Eq	Archival	1	100	0	0	
Meier & O'Toole (2003)	1043	USA	SP	Latino administrator & manager	Archival	Eft, Eq	Archival	54	31	0	69	
Smith (2003)	179	USA	SP	Black representation	Archival	Q	Archival	3	100	0	0	
Andrews et al. (2005)	150	UK	MP	Ethic diversity SMT	Archival	In, US	Archival	4	0	75	25	
Pitts (2005)	2482	USA	SP	Teacher & manager diversity	Archival	Eft, Q	Archival	12	33	17	50	
Meier & Nicholson-Crotty (2006)	60	USA	SP	Female police	Archival	Eft	Archival	6	100	0	0	
Meier et al. (2006)	1039	USA	SP	Female teachers	Archival	Eft, Eq	Archival	5	80	0	20	
Pitts (2007)	6994	USA	SP	Teacher & manager diversity	Archival	Eft, Eq, Q	Archival	12	33	17	50	
Wilkins & Williams (2008)	96	USA	SP	Black representation	Archival	Eq	Archival	1	100	0	0	
Pitts & Jarry (2009)	1041	USA	SP	Teacher diversity	Archival	Eft	Archival	3	67	33	0	
Rocha and Pitts (2012)	1263	USA	SP	Teacher & manager diversity	Archival	Eft	Archival	8	63	0	37	
								Number of studies	14			
								Number of tests	129			
								Unweighted		61	13	26
								Weighted		43	9	48

Key  
 Purpose: MP = multi-purpose, SP = single purpose.  
 Performance dimension: Eft = Effectiveness, Efy = Efficiency, Eq = Equity, Q = Quality, US = User Satisfaction.

Table 8: Managerial networking

Study	Sample	Country	Purpose	Management		Performance		No. tests	+	-	ns	
				Networking	Measure	Dimension	Measure					
Meier & O'Toole (2001)	2535	USA	SP	Networking index	Perceptual	Eft	Archival	1	100	0	0	
O'Toole & Meier (2003)	2525	USA	SP	Networking index	Perceptual	Eft, Eq	Archival	10	70	10	20	
Meier & O'Toole (2003)	507	USA	SP	Networking index	Perceptual	Eft	Archival	1	100	0	0	
Nicholson-Crotty & O'Toole (2004)	544	USA	SP	Networking index	Perceptual	Eft	Archival	3	67	0	33	
O'Toole & Meier (2004b)	313	USA	SP	Networking index	Perceptual	Eft, Eq	Archival	55	30	35	35	
Hill (2005)	2027	USA	SP	Networking index	Perceptual	Eft	Archival	6	0	0	100	
Goerdel (2006)	2120	USA	SP	Proactive network	Perceptual	Eft, Eq, Q	Archival	22	32	9	59	
O'Toole & Meier (2006)	4114	USA	SP	Networking index	Perceptual	Eft	Archival	1	100	0	0	
Meier et al. (2007)	3041	USA	SP	Networking index	Perceptual	Eft, Eq, Q	Archival	9	56	11	33	
Meier & O'Toole (2008)	4114	USA	SP	Networking index	Perceptual	Eft	Archival	1	100	0	0	
O'Toole & Meier (2009)	2400	USA	SP	Networking index	Perceptual	Eft	Archival	1	0	0	100	
Meier & O'Toole (2010b)	4114	USA	SP	Managing upwards	Perceptual	Eft	Archival	2	100	0	0	
Meier et al. (2010)	3041	USA	SP	Networking index	Perceptual	Eft	Archival	2	100	0	0	
Walker, Andrews et al. (2010)	101	UK	MP	Networking index and nodes	Perceptual	In	Both	13	23	23	54	
Palatta (2012)	453	Italy	SP	Network ties	Archival	Eft	Archival	6	18	18	67	
								Number of studies	15			
								Number of tests	133			
								Unweighted		60	7	33
								Weighted		37	20	43

Key  
 Purpose: MP = multi-purpose, SP = single purpose.  
 Performance dimension: Eft = Effectiveness, Efy = Efficiency, Eq = Equity, In = Index Q = Quality.

Table 9: The effects of management on different dimensions of performance: reporting percentage of positive support scores

Management	Efficiency			Effectiveness			Equity			Index		
	S	T	+	S	T	+	S	T	+	S	T	+
Size	7	20	50 (40)	5	16	4 (6)			X	5	10	20 (10)
Strategy			X	7	32	75 (50)			X	5	22	60 (59)
Planning			X	5	56	80 (82)			X	8	23	53 (52)
Staff quality			X	13	46	73 (78)	6	27	90 (93)			X
Stability			X	12	57	47 (44)	4	19	50 (84)			X
Representative Bureaucracy			X	10	83	48 (42)	7	15	71 (60)			X
Networking			X	14	58	73 (60)	4	58	29 (31)			X

Key:

Weighted support scores in parenthesis

S = number of studies, T = number of tests, + = positive support score

X = no test